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# CLINICAL MEDICINE AND SURGERY

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# CLINICAL MEDICINE AND SURGERY

GEORGE B. LAKE, M.D.

• Editor •

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## EDITORIAL

### Nicholas Senn

Teacher of Surgery

**H**ELVETIA (now generally called Switzerland), beset by foes and hemmed in by mountains, bred a sturdy and warlike race of men, and one of her sons, who showed the predominating characteristics of his forebears very strongly, gained fame and fortune in these United States and added luster to our medical history.

Nicholas Senn, who came of the solid and enduring German-Swiss stock, first saw the light in Buchs, St. Gall, Switzerland, on October 31, 1844, but did not long remain in his native land, for at the age of eight, his parents came to this country and settled in the little town of Ashford, Wisconsin, near Fond du Lac, in which latter community the boy gained his public schooling, graduating from the high school in 1864.

His ambitions turning toward medicine, he started to "read" that profession under the preceptorship of Dr. Munk, teaching school at the same time, in order that he might be clothed and fed and independent, and studying the trees, flowers and shrubs of the neighborhood because he was that kind of a lad. In 1866 he entered the Chicago Medical College, graduated two years later as a Doctor of Medicine, and began his practice at Elmore, Wisconsin.

But Senn was not destined to spend his life as a country practitioner, and the first step toward the high places he was to occupy was his move to Milwaukee, in 1874, followed, three years later, by his pilgrimage to the University of Munich, Germany, from which he was graduated in 1878, having come under the influence of the great military surgeon, von Nussbaum.

In 1880 Senn returned to Milwaukee and, having been called to the chair of surgery at the College of Physicians and Surgeons, Chicago, he travelled the eighty-eight miles, back and forth, twice a week (when such a trip was considered quite a journey), to deliver his lectures and hold his clinics. This he continued after he was made professor of the principles and practice of surgery, in 1884. So wide and deep was his knowledge and so masterly his power as a teacher, that practicing physicians and surgeons came considerable distances to share his instruction with his undergraduate students.

During these strenuous days, in addition to his practice and teaching, he was carrying on, as a pioneer, first in the loft of his stable and then in a laboratory under the sidewalk of his home, those animal experiments on in-

testinal surgery which made him the acknowledged leader in this field.

Rush Medical College called him to be professor of surgery and surgical pathology, in 1888, and three years later promoted him to be professor of the practice of surgery and clinical surgery—then the most important surgical appointment in the West. He was also professor of surgery in the Chicago Polyclinic and surgeon-in-chief to several hospitals. Later he was professor of surgery and military surgery at the University of Chicago. In 1897 he was president of the American Medical Association.

With his military background (his father was a soldier in Switzerland), his adolescence spent in the national atmosphere of the Civil War, his hero worship of great army surgeons of the past—Paré, Larrey, Pirogoff—and his association with leading military surgeons in Germany, still fresh from their experiences in the Franco-Prussian War, it was not strange that Senn had a deep fondness for military affairs which, in fact, became one of his chief hobbies, among many. In 1892 he was commissioned a brigadier general of the Illinois National Guard; and when the Spanish War broke out, in 1898, he accepted a colonel's commission in the Medical Corps of the Army and performed valuable services, as chief of the operating staff with the army in the field. His favorite picture of himself was the one in uniform, here reproduced. He was the chief founder of the Association of Military Surgeons and made large contributions to the science of war-time surgery.

Though Senn was a prolific writer and contributed several substantial books to the literature, he had a tendency to write as he operated and did many other things—boldly, freely, dashing and without much reference to authorities. That is, perhaps, why his writings have not shown the permanency one would expect. His personal precepts were far more powerful than his pen; and yet he was so strongly an individualist that he founded no personal following, though his teachings affected the scientific outlook of the entire Western Hemisphere. Howard Kelly spoke of him as the S. D. Gross redivivus.

Short, stocky, broad-shouldered, deep-chested, his physical and mental energy seemed inexhaustible. He needed little sleep

and took almost no recreation, except that furnished by a change of activity (it is said that he attended theatrical performances only twice in his life, and then left early to return to his library). His knowledge of pathology and the history and literature of medicine was amazing. He was an authority on botany, an accomplished linguist and, in his later years, a world traveler. His final illness, resulting in his death on January 2, 1908, seems to have been brought on by a South American mountain climb to an elevation of 16,000 feet, causing dilation of a previously myocarditic heart and accompanying acute nephritis.

Among the few really great surgical teachers of the world, Senn holds a high place; and those who had the joy and good fortune to come in contact with his dynamic, warm-hearted, sympathetic, erudite and enthusiastic personality will always give thanks for that unforgettable experience. His monument is built high and strong in the hearts and minds of his pupils and his friends.

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Earning a livelihood can never serve as an outlet for a dynamic personality.—WALTER B. PITKIN.

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### Waiting-room Literature

THE so-called funny papers have worn threadbare the old and well-founded joke about the "vintage" magazines too often found in the waiting rooms of doctors' offices.

This thing, however, is more and deeper than a joke. The secret of a clinical practice, which is successful from every standpoint, is enthusiastic, or at least satisfied, patients. Many serious and weighty factors enter into this problem, but too many physicians fail to recognize the importance of the seemingly inconsequential matters which go to the building of satisfaction. The result of an office consultation may be entirely spoiled by a preceding half-hour of distress or discomfort in the waiting-room.

Patients must have something to distract their minds from their troubles, and especially from the *passage of time*, while they wait. Well-selected books, and, particularly, bright, snappy, clean, *fresh* magazines with plenty of pictures, accomplish this result.

Put half a dozen magazines of various types

on your waiting-room table, and then watch carefully to see which ones become dog-eared first. Replace these, *promptly*, with others of the same type. Within reasonable limits, give your patients what they like and want.

One type of literature must *not* be left in the waiting-room: That is, medical journals. This magazine is generally considered to be readable, but it is *not for laymen*, except in exceptional instances; nor is any other similar periodical. "A little knowledge is dangerous," but if it is to be cured by *more* (which is the only antidote), the physician should determine the proper form of the remedy and adapt the doses and frequency of administration to the individual patient. Because digtals is a valuable and necessary drug, one would hardly leave it lying about promiscuously. The little brochures which we furnish to physicians are proving just the thing, in many cases.

Then, too, we have been upset—yes, well-nigh undone—by the multitude of non-professional nose-pickers who have been and are trying, without a foundation of elementary knowledge and understanding, to regulate and supervise the practice of medicine. How foolish it would be to place in the hands of such people the unfinished discussions of the problems which we know we have not yet solved, but which we yearn to deal with by and for ourselves, in the company and with the help of our confreres and without the ignorant and often hostile "help" of outsiders.

Keep bright, new magazines in the waiting-room at all times; but keep the professional journals in the sanctuary of the inner office and out of sight.

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There are few regrets over the purchase of a superior article.—*Little Journ. for Pediatricists.*

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## Change

THERE is one thing, or condition, in this universe of ours which is unchanging, and this is that change is the law of life. No thing in the world is exactly the same today as it was yesterday; and tomorrow everything will be more or less different than it is today. This applies to inanimate things, to what we call living beings and to the social

groups of men (communities, nations, races), which are also organisms and behave as such.

The reason why man has survived on this planet is because he has possessed an unprecedented capacity for adapting himself to changes in his environment. The huge reptiles of the Jurassic Era, vastly more powerful, physically, than man, are now merely an interesting study for archeologists, because they lacked the ability to meet the changes taking place on and in the earth's crust.

Since change is the law of life and of evolution, it takes place without human volition; in fact, in spite of all our efforts to arrest it. If, however, we aspire to manifest that intelligence which would justify the word *sapiens* as a description of our species, we should welcome the inevitable changes which are the only means of progress, and apply our energies, not to endeavoring to stop them and keep things as they are, but to serious efforts to foresee them and direct them into channels which will be most beneficial to us and will hasten that evolutionary development which is bound to come, whether we will or no.

The world's economic, social and political life will never again be as it was a generation, or even a decade, ago. Medical practice, in all its aspects, will never return to what it was in the time of our fathers. If we can make up our minds, firmly and conclusively, that this is an unalterable fact, we will cease wasting time and energy in bemoaning the passing of the "good old days," and earnestly and confidently set about investigating the new territory into which we are advancing, and planning habitations for ourselves in it.

The changes in medicine which are coming will be planned and organized by physicians (which would be the best way for all concerned), or, failing that, will be carried out by laymen, who are liable to have no clear idea as to what, in the long run, will be the best course to pursue.

If we would defend our claim to being thoughtful and intelligent members of the body politic, we will recognize the immutability of change; expect it; watch for and study it, with the idea of controlling and di-

recting it; and come to welcome it with impersonal eagerness, and finally to love it, as part of the Great Law.

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To hold to an opinion is to paste the name of a town upon a train that is passing along.—WILL LEVINGTON COMFORT.

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### Red Cross Volunteers

IF every man and boy mobilized under such organizations as the National Guard, the Boy Scouts and Sea Scouts, Rotary, Kiwanis, Lions and other service clubs, and in such fraternal societies as the Knights of Columbus, the Masonic Orders, the Knights of Pythias, Junior Order of American Mechanics, Odd Fellows and scores more, were to receive individual credit for the generous cooperation lent again and again by these bodies in times of dire emergency to the American Red Cross, in its great relief operations, the Greatest Mother could claim at least ten million members. In the true and deepest meaning of the word, these militia men, lodge brothers and adolescent youths are volunteers. Their massed effort and untiring labors, as individuals and as units, enable the Greatest Mother to carry on, at minimum cost, the colossal projects to which she is committed in her rôle as national disaster-relief administrator.

Mobilization of nurses for the relief of the victims of the California earthquake which wreaked its malevolence upon Long Beach last spring, emphasized once more the selflessness that makes the vocation a perpetual

inspiration. During the peak of the emergency, 689 individual Red Cross nurses filled more than 1,000 nursing assignments, relieving regular staffs at hospitals in the stricken areas, at numerous first aid stations and concentration camps. They served without remuneration and kept no account of the long hours contributed.

Wherever the Junior Red Cross is organized, there the eyes of youth are being trained to see, their ears to hear and their hearts to feel the needs of others. With sympathy comes also the seeking for mitigation of distress.

The eyes of youth are easily opened. Its jealousies and prejudices are neither deep nor fixed. Through the friendliness and helpful cooperation of the children of the world in the Junior Red Cross, there is growing up such international understanding and good will as must eventually make war an impossibility. Seven million American school children, mustered in the Junior Red Cross, are helping to bring about this devoutly hoped for consummation. Meanwhile they are developing into a body of intelligent, resourceful, and socially-minded citizens, prepared to assume the responsibilities of the future for the Red Cross and the world.

Not all of us can take an active part in the splendid activities of this wonderful organization, but practically every one can hold up its ministering hands by joyously answering its annual roll call, which comes this month, with a dollar. In this very real sense we can all be Red Cross Volunteers and share in the thrill which comes from having a part in their life-saving work.

---

### Song Through Leaf Smoke\*

*Sword-blade rays of darkness falling  
Straight from the edge of a purple world  
Strike down the flames  
Of the sumac and cut the strings  
From the cricket's fiddle.  
Autumn gold is a riddle  
For misers. But something sings  
Loud through the frost that tames  
The weak ones; through sharp smoke whirled  
When the sun faints and jays are calling.*

—G. B. L.

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\*Reprinted from *Decimal*, June, 1933.

# LEADING ARTICLES

## Mass Treatment and Control of Tuberculosis by Immune Blood Inunctions

By Joseph Hollos, M.D., New York City

FOR a new means or method of treatment to gain approval in medicine, it is necessary that the superiority of the new over the old and accepted means or methods should become a matter of common knowledge. The principle of surgical cleanliness, one of the greatest achievements of medical science, was vainly urged by its discoverer, Semmelweis. General approval followed only after 25 years, when bacteria were already known, and thus the importance of asepsis received its theoretic justification. Diphtheria antitoxin, too, needed more than half a decade to overcome the resistance of authorities and practitioners. The Wassermann test was approved only because it was based on a theory already accepted.

Tuberculin was not so fortunate. Millions of sick people expected miracles from it, therefore its failures at the beginning, caused by ignorance of its physiologic effect and by incorrect application, brought on world-wide disappointment. After its damning criticism by the greatest authority, Virchow, physicians did not want to have anything to do with the tuberculin treatment and only after long years of work did tuberculin win legitimacy in European countries, mainly in Germany, in the field of tuberculosis therapy. In America the specific treatment of tuberculosis has lagged behind that of Europe by several decades.

While the application of several kinds of tuberculin won a slow legitimacy, and even became a supplementary part of treatment in sanitariums, thus promoting its universal adoption, in Europe at least, the discovery of Spengler, Immune blood, met with a tragic fate. Here again the voice of an authority sealed the fate of the new and, to date, the best specific for tuberculosis, probably because its mode of application was necessarily primitive.

Since the discovery of immune blood by Dr. Carl Spengler, in 1908, I have had the opportunity of treating over 15,000 cases with it. It has often proved an indispensable means of diagnosis. The tuberculous origin of certain persistent symptoms or symptom complexes, such as neuralgia, rheumatism, dys-

menorrhea, neurasthenia, etc., can often be shown as such only through the immune blood treatment, in which case, not only diagnosis, but therapy also can be assured. For this it is by no means necessary to use injections; it is quite sufficient to supply the patient with a moderate dilution of immune blood, with instructions to rub 4 or 5 drops daily into the skin. After 3 to 4 weeks the patient should be seen again, when the diagnosis can usually be made. In doubtful cases the period of observation should be prolonged.

During my entire practice I have been in the fortunate position of having had patients, the greater proportion of whom belonged to the poorest classes and who, in most instances, were unable to change their mode of life. Thus I could observe the therapeutic effects of this specific without any external influence. Moreover, I have had the opportunity to treat and observe, through a course of years, numerous patients, some of them over 20 years. I was able, through systematic inunctions of immune blood, to prevent and ward off manifestations of tuberculosis in entire families.

### Antitoxic Effect

The antitoxic effect of immune blood is the quality which places it above the different tuberculins. With the smallest dose of this specific we give a potent antitoxin to the human organism, which, by neutralizing the free toxin, liberates the hypersensitive patient from the subjective symptoms and functional disturbances caused by the toxins, which disturb and often destroy the active resistance of the body. Such may be headaches, dizziness, insomnia, lack of appetite, pains in the joints, muscles and other organs, nervousness and mental depression, fatigue, disturbances of menstruation, etc. Patients suffering from tuberculous intoxication, and mostly unaware of having tuberculosis, will eat better after the daily inunction of immune blood, and will gain weight; pain and other unpleasant sensations will cease and joy of life will return. After a self-treatment of one or two months, the patient often feels entirely

healthy. Actually, the latent tuberculosis will still remain, as the healing process of the tuberculous focus or foci may last for years, but the fight against the bacilli will be localized there, without disturbing the subjective feelings of the patient. When unbound toxins again appear in the system, the subjective symptoms will recur, but we can easily overcome them again with the renewal of the inunctions. This may happen several times before final healing.

This antitoxic quality is especially valuable and indispensable in cases where the patient's organism has deteriorated to the point where it is absolutely incapable of active resistance, as a consequence of severe toxicosis. These comprise the most difficult cases, either for sanitarium or for tuberculin treatment, as the basis of both is the ability of the organism to offer this active resistance. In such cases the use of tuberculin is not only futile, but may even be dangerous.

Especially in children we may observe this remarkable effect, as illustrated in the following case:

#### Case Reports

*Case 1.*—In 1903 I was called to see a tuberculous boy, 6 years of age, who was under the care of one of my students who, although he had often used immune blood, had not even tried it in this case, as he considered it quite hopeless. As a matter of fact the extraordinarily emaciated, languishing child, feverish and bedridden for months, did not raise any hope in me, either, and only for the consolation of the parents I ordered immune blood to be rubbed into the skin twice a day. Yet soon I was to hear that extraordinary improvement had begun, slowly at first, but soon his new strength was evident and the boy appeared in my office three months later, in comparatively good condition. He gained rapidly and went to school half a year later. The systematic use of immune blood, by rubbing into the skin, was continued for a long time.

A quite analogous case, in an adult, is my following observation:

*Case 2.*—I was called, on March 8, 1921, to see a 24-year-old man, bedridden for the past 3 months, with steadily high fever. The patient was emaciated and so weak that he could not rise from his bed. He had no appetite and complained of sleeplessness and extreme exhaustion; in fact, the case seemed quite hopeless, though only a slight destruction of the lung was present, with a moderate amount of sputum containing tubercle bacilli. The pulse was over 120, but there was no evidence of weakness of the heart. There was no doubt that exhaustion, caused by the severely toxic condition, would soon kill the patient.

The immune blood, dilution No. VI, rubbed on twice a day, proved itself in this case also, by its antitoxic effect, a lifesaver. Appetite and ability to sleep began to appear and after ten days he could rise from bed for the first time. Slowly the fever and pulse began to improve and, two and a half months later, the patient was able to appear in my office. It took two years, with continuous treatment, before the temperature became normal and the capacity to work returned. Meanwhile the

cough and sputum disappeared. After 3 years of treatment—when I left the country—the case was seemingly quiescent.

The following case belongs to my New York observations:

*Case 3.*—Dec. 18, 1928, Mrs. T. B., 50 years old, had had tormenting headaches for years, starting six years previously. She had had pleurisy for years past, but after recovery she felt well for a year, and then developed tuberculous peritonitis, recovering in a few months after alpine-lamp treatment. Tuberculous spondylitis, a year before I saw her, developed after an automobile accident. Since that time she had been bedridden and had had continuous fever for several months (every day up to 103° F.), with lack of appetite, sleeplessness, and profuse night sweats.

This well developed, greatly emaciated woman was very pale, appearing cachectic. There were no physical signs in the chest; her tongue was dry; the under part of the dorsal spine was hunched and stiff; hemoglobin, 60 percent; pulse, 96.

I gave her immune blood, dilution No. V (100,000 times diluted), for daily rubbing into the skin. I saw her two weeks later. Already she had felt stronger for a week, with appetite returning; sweating was less. Soon the night sweats disappeared and she could leave the bed once or twice a day for an hour. Eight weeks after beginning treatment she was mostly out of bed and bathed herself (for a whole year she had been unable to take a bath). Her general feeling was good and on March 3, two and a half months after the first immune blood inunction, she came to my office.

The temperature curve showed the steady descent of the fever. Two weeks after starting the inunction I gave an injection of immune blood, 0.3 cc. of the No. VIII dilution (100 million times diluted), after which there was a slight reaction.

#### Limitations

Of course, in cases with advanced destruction of the lungs or other organs or with severe secondary infections or with lowered resistance, due for instance to alcoholism, we cannot expect a miracle from immune blood. But in many cases, where the prognosis is uncertain, the immune blood inunctions will decide in a few weeks whether the patient's organism has still such resistance that we can continue the treatment in the hope of success, or whether the case is hopeless.

We must be aware of the fact that the value of neither tuberculin nor immune blood lies in curing progressive, severe cases of consumption, but in the possibility of curing latent and early manifest cases. In this respect the specific and healing property of both tuberculin and immune blood is indisputable. But, while indications for tuberculin are limited, there are no limitations, no contraindications, to immune blood. However, in cases where symptoms of intoxication predominate, the very complex clinical picture of which I have summarized, the value of immune blood is immeasurable and its superiority over the tuberculin, due to its antitoxic property, is easily shown.

I have already published in this journal my

conception of the intoxications, as well as the technic of immune blood treatment\*. Therefore I mention here only that the immune blood is based on the discovery of Spengler that the immune bodies of tuberculosis generate and accumulate in immense quantity in the red blood cells and are confined to the hemoglobin. He prepares the immune blood from the dissolved red blood corpuscles of rabbits, immunized to human and bovine tubercle bacilli. This solution contains the immune bodies of tuberculosis, especially antitoxin and lysin, in immense quantity and acts in great dilution as dissociated specific electrons.

### Inunction Method

The rubbing-in method originated with Spengler who, in 1907, applied it with tuberculin to overcome the great hypersensitivity which made injections impossible. Later he applied his immune blood also percutaneously, before introducing the injections, in order to lessen reactions.

I was forced to use the percutaneous method on a wider basis, as many patients came to me from remote parts of the country, for whom it was impossible to come regularly for treatment. I gave them a suitable dilution of immune blood and instructed them to rub daily 4 or 5 drops into the skin of the forearm until dry. From month to month I augmented the concentration of the dose and I noticed that this simplified method was not less successful. The disappearance or amelioration of the symptoms, and even a cure, can be reached with this method as well as with the injections. I even used this method with patients living nearby who had only symptoms of intoxication, and I often succeeded in curing them without their knowing of the tuberculous origin of their illness.

Thus I came into the possession of a specific method suitable for mass treatment, which I made known in 1908 but which was not taken notice of. Years later—in 1914—Prof. Petruschky, of Germany, published an account of this same method, which he conducted with tuberculin and with which he succeeded in ridding a heavily infected Prussian village of tuberculosis. Since that time this method, wrongly called the "Petruschky method," has found many followers in Germany, along with the belief that systematic rubbing in of tuberculin is even more advantageous than injections. Petruschky and his followers† speak, not only of the first-class healing effect of this method which, for the most part, sur-

passes treatment in Sanitariums, but they declare its unique rôle for the prophylaxis and control of consumption.

One disadvantage, however, is that this can be done only under the constant supervision of physicians, in view of the possibility of incorrect use and contraindications and various other limitations of tuberculin treatment. On the other hand, immune blood is the most ideal substance for mass treatment in the form of inunction. A great many children and adolescents are without the knowledge of having tuberculosis. But even if all the cases of tuberculosis could be known, would it be in our power to create as many sanitariums, recreation centers, forest schools, etc., for the benefit of the millions infected? And could we insure the hygienic mode of life for the ten millions of people suffering from latent tuberculosis, to prevent the manifestation of consumption? This we could not do, even in a period of prosperity. In the present economic crisis, such a conception is impossible. Never as in the present, has it been so necessary to find cheap and mass-reaching treatment of the needy population.

We can hand the No. VII dilution of immune blood (10 million times diluted) to every one infected, to rub 5 drops daily into the skin of the forearm. Progressing cases may use this dilution twice a day. After 2 or 3 weeks of application we proceed to the No. VI (one million times diluted). After 4 weeks it is advisable to stop for one week. Following this we use the No. V (100,000 times diluted) for 6 to 8 weeks. Once more a week of rest and after that 6 to 8 weeks with the dilution No. IV (10,000 times diluted). In cases with only symptoms of intoxication, the treatment may be concluded at this point.

In manifested cases we continue the treatment with the No. III (1,000 times diluted) once a day or, in less severe cases, once in two days. If this dilution does not agree with the patient it is advisable to return to No. IV or V. However, if the patient tolerates it well, after 6 to 8 weeks we may go on to No. II (100 times diluted), applying it once in 2 or 3 days. After another 6 to 8 weeks we may cease the application for a few months, in order to give the system time to use up the given stimulus.

Repetition of treatment should continue in the same order, but we can start with dilution No. VI. Thus a course of treatment lasts 5 to 6 months or longer, but without causing the patient the slightest unpleasantness. The cost is so low as to be almost negligible. We repeat the treatment until the cure is complete.

Children are especially good subjects for immune blood treatment, as the granulation tissue is still fresh and less complicated by

\*Tuberculosis Intoxications," *CLIN. MED. & SURG.*, October, 1925; "Treatment of Tuberculosis with Spengler's Immune Blood," *CLIN. MED. & SURG.*, Jan., 1926.

†Dr. Felix Grossman, "Die spezifische Percutanbehandlung der Tuberculose mit dem Petruschyschem Tuberkulininiment." Urban & Schwarzenberg, Berlin, 1921.

retrogressive changes and secondary infection and therefore easily curable.

Lysin, the second important component of immune blood, furthers even more the healing of the foci. Whereas the binding of the toxin restores or helps resistance by the active production of immune bodies, lysin attacks the bacilli directly. Its bacillus-dissolving properties manifest themselves by a passing fever and an increase of general symptoms. This effect is very weak and hardly perceptible with inunctions. In cases of hypersensibility it is advisable to suspend the inunctions for a few days or to return to a weaker dose.

This method is so simple that one can scarcely imagine a more ideal means for the mass treatment of this obstinate, treacherous and fatal disease. In every tuberculosis institution, in every center of tuberculosis-infected persons, it should be used by everyone. It should also be used in every family where consumption has occurred and in every school with children whose tuberculin test is positive (the intradermal test should be obligatory, like the diphtheria test). In such a way we could greatly speed up the treatment in sanatoriums, and we can improve the chance of recovery in innumerable cases.

23 E. 88th St.

## The A. B. C. of Cancer

### 5. Tumors of the Breast

#### (Part I)

By Charles F. Geschickter, M.D. Baltimore, Md.

Surgical Pathological Laboratory, Department of Surgery, Johns Hopkins Hospital and University

FROM both a clinical and pathologic standpoint it is important to correlate tumors of the breast with age and location and with sexual functions. The first two factors of age and location offer a key to the anatomic focus in the breast which furnishes the nucleus for tumor formation, and the latter points to certain physiologic disturbances of etiologic significance. It is also exceedingly important to bear in mind the relationship between the benign and malignant tumors when treatment is under consideration. The classification in

week of embryonic life. From the lower basal-cell layers of the mammary bud, the ducts, with their terminal tubules, sprout downward and, at the time of birth, are alike in both male and female. The breast remains essentially a tubular organ surmounted by the nipple until puberty. This primary system of ducts we term the duct zone. At puberty there is a growth and budding of the terminal tubules surrounded by fibrous tissue, which eventually gives rise to lobule formation. But it is not until late in puberty, with sexual

TABLE I

| Period of Development | Anatomic Location                          | Benign                                       | Malignant   | Physiologic Hormonal Influence |
|-----------------------|--|--|---|--------------------------------|
| Embryonic Period      | 1. Nipple zone<br>2. Duct zone             | Benign keratoses—30*<br>Benign papilloma—180 | Paget's cancer—45<br>Papillary cancer—95<br>Colloid cancer—80 |                                |
| Adolescent Period     | 3. Ducts & Tubules<br>4. Ducts & Tubules   | Gynecomastia—88<br>Fibroadenoma—500          | Fibrosarcoma—22   | Pituitary<br>Pituitary         |
| Sexual Period         | 5. Ducts & Tubules<br>6. Tubules & Lobules | Cystic disease—500<br>Diffuse adenosis—100   | Comedo cancer—100   | Folliculin<br>Corpus luteum    |
| Post-sexual Period    | 7. Lobule                                  |  | Scirrhus carcinoma—1800<br>Medullary carcinoma—150            |                                |

\*All figures indicate number of cases on file in the Surgical Pathological Laboratory, Johns Hopkins Hospital.

Table I attempts to correlate these various factors:

Knowledge of the normal development of the breast is necessary to comprehend the origin of the various types of tumors in this organ. The mammary buds, derived from the basal-cell layer of the skin, form the nipple, and the nipple zone constitutes the most primitive growth center. It forms in the sixth

maturity, that lobule formation is prominent and not until late in pregnancy and with lactation that true acini are formed.

The development of the breasts can thus be classified into three periods: The first is that of embryonic development, resulting in the formation of the nipple and the primary ducts. Tumors of the nipple (Paget's disease) and intraductal papillomas (benign and malign-

nant) owe their origin to structures formed in this period. The second period of growth is adolescent and gives rise to great branching of ducts and a growth of periductal connective tissue, providing for but not completing the lobular structure of the adult breast. It is essentially a continuation of the embryonic period, and overlaps with the sexual period. Gynecomastia, fibroadenoma and fibrosarcoma have their foci of origin in this period. The third period of development is sexual and is intimately associated with the functions of pregnancy. Lobule formation, increase in the capacity of the duct system, and eventually acinar formation with pregnancy occur in this period, which is followed by a fourth period of atrophy (rather than development), after the menopause. The greater number of all breast tumors—the varieties of so-called chronic cystic mastitis and scirrhus and medullary carcinoma—may be traced directly or indirectly to the third period.

#### Benign Keratoses and Paget's Cancer

The original studies of Paget and those of Bloodgood<sup>1</sup> and Kilgore,<sup>2</sup> made in this laboratory, as well as the personal investigation of this material, favor the view that Paget's cancer may arise from benign keratoses and that both diseases may take origin from the nipple zone which harbors the growth center of the mammary buds.

Of 75 cases recorded in this group of nipple lesions, 30 were microscopically diagnosed as benign keratoses and 45 as cancer of the Paget type. The disease may appear at any time after thirty-five years, but the majority of patients are beyond the menopause (over 45). The duration of the disease is in terms of years rather than months and the initial symptoms relate to the nipple, with crusting, bleeding, retraction or discharge, followed after a long interval, by a lump in the breast beneath. After cancer develops in the breast metastases may appear in the axillary lymph nodes.

**Keratosis of the Nipple:** The earlier phases of the disease are limited to the nipple which is involved by a benign wart or eczema. The lesion is usually of the squamous-cell type and does not involve the ducts beneath. In this stage the disease may be cured by soap and water and by petrolatum, which removes the source of irritation and promotes healing.

**Paget's Cancer:** Later, with involvement of the basal-cell layers of the nipple zone, excision of the whole nipple area is necessary and, if the large malignant cuboidal cells of the Paget type appear in the section, the complete operation for cancer must be done.

These large cuboidal cells, appearing in the basal-cell layer of the nipple, involve the mouth of the larger ducts, and themselves may be seen to give rise to ducts of the embryonic type, duplicating the behavior of the mammary bud seen in the embryo. In addition to this activity of the mammary bud, the large ducts beneath become filled with cancer in which the typical cuboidal Paget cells predominate. Eventually carcinoma may infiltrate the breast tissue beyond the ducts, after the fashion of scirrhus cancer.

In none of the 25 cases of benign lesions of the nipple treated by excision was death recorded from recurrence, although in one case amputation of the breast was performed six months later for malignant change. Where the malignant change had occurred and the breast was involved, cures of over five years duration were established in 5 of 40 cases by doing the radical operation. Twenty (20) percent of the malignant cases had the benefits of pre or post-operative irradiation, in addition to surgery.

In addition to the cases of the primary Paget type described above, there is a small group in which the cancer originating in the breast beneath invades the nipple zone by way of the large ducts. These cases of Paget's disease secondary to carcinoma of the breast have an exceedingly bad prognosis, and are generally accompanied by skin metastasis. In rare cases, Paget's cancer of the nipple has been observed in males.

#### Benign Papilloma and Papillary Cancer

The tumors included in this group comprise 180 cases of benign papilloma and 100 of papillary carcinoma, the cancers apparently being related in the majority of cases to a preceding benign papilloma. With occasional exceptions these papillary lesions occur in the larger ducts, just beneath the nipple. They apparently arise at the points of bifurcation of the ducts, where epithelial tissue remains after the process of branching during embryonic life. Most of the benign tumors occur in females before the age of the menopause. A few cases have been reported in males. In the malignant group the age incidence is predominately over thirty-five, with a fair distribution in every decade thereafter up to 80. Here again males are occasionally affected. The two outstanding clinical features of the disease, whether benign or malignant, is the location of the tumor near the nipple and cistern of the breast, within the larger ducts, and the occurrence of a bloody discharge from the nipple.

**Papilloma:** Benign papilloma is accompanied by a bloody discharge (usually bright-red blood) from the nipple in 60 percent of the cases, gives rise to a freely-movable lump beneath the nipple (rarely with retraction)

1.—Bloodgood, J. C.: Paget's Disease of the Female Nipple. *Arch. Surg.* 8: 461, Mar., 1924.

2.—Kilgore, A. R.: Is Paget's Disease of the Nipple Primary or Secondary to Cancer of the Underlying Breast? *Arch. Surg.* 3: 324, Sept., 1921.

and casts a dark shadow upon transillumination. The lump varies in size from that of a pea to a walnut, does not transfix the overlying skin nor are the glands in the axilla involved. Despite the fact that pathologic study relates the benign papilloma to papillary cancer, there was no definite recurrence or metastasis in this group of 180 cases, regardless of whether simple excision or the more complete operation was done.\* All of these cases were distinctly benign under the microscope, with branching stalks overlaid by orderly rows of columnar or oval epithelium, richly supplied with blood vessels (Fig. 1). In the benign growths the branching epithelium occasionally extends in solid sheets and, in occasional borderline cases, such sheets of epithelium may grow into the fibrous walls surrounding the papilloma. Even with such epithelial activity, excision suffices to cure where the soft-colored, flower-like growth is benign upon gross examination and without fixation or infiltration into surrounding structures.

**Papillary Cancer:** In a minority of the cases of papillary cancer benign papillomas were found persisting next the malignant tumor; or the clinical duration, extending over a period of from five to thirty years, indicated a previously benign growth. In the majority of the cases, however, the interpretation of the cancer as papillary in origin depends upon the microscopic appearance of the malignant growth. Strands of the malignant tissue grow in papillary formation and the invading islands of epithelium give rise to oval-shaped acini or small tubule-like structures, even in the metastases. In some of these longstanding papillomas a change to mucoid cancer (so-called colloid cancer) may be seen in certain areas.

Of 55 cases followed for sufficient periods to determine the ultimate result, 34 were living five years or over and 4 died of the disease after a period of from four to six years. This low degree of malignancy (61 percent of five-year cures) is additional evidence in favor of the origin of these papillary cancers from pre-existing benign papillomas.

While local excision suffices to cure the benign papilloma which has not grown too large, in the larger papillomas, exceeding the diameter of a fifty-cent piece, particularly in women past the age of forty, it is important to have a biopsy made to rule out malignant change. Size and age predispose to malignant change and the size means mutilation of the breast, regardless of the type of operation. With any microscopic suspicion of malignancy the complete cancer operation should be performed.

Bloody discharge from the nipple alone,

\*An exception to this rule is described under colloid cancer, below.

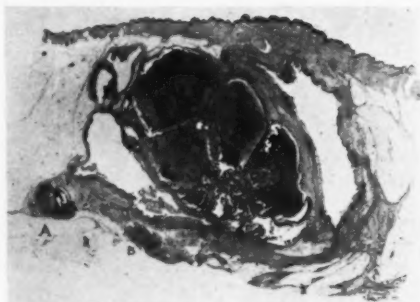


Fig. 1.—Cross section of a large papilloma of the breast occurring beneath the nipple. Two branches (A and B) of the main duct thus affected are also filled with small papillomas.

however, is not a sign of cancer, nor does the finding of a single papilloma mean that the disease is necessarily multiple. Microscopic studies indicate that benign papilloma is usually a single tumor, arising at the point of bifurcation of a larger duct and hence often extending into two or three ducts, although the majority of the tufts are usually confined in a single duct. Local excision, with a margin of normal tissue will therefore suffice to eradicate the disease. When multiple, papillomas of small size are usually a manifestation of Schimmelbusch's disease (diffuse adenosis) and are accompanied by small duct adenoma and lobular proliferation. Such growths may disappear with the cycles of sex life, and cannot be considered true tumors. They are classed with chronic cystic mastitis, rather than with papillomatous tumors, and are discussed below.

**Colloid Cancer:** Colloid cancer occurs in adults past the age of the menopause, or occasionally a decade sooner. The majority of histories are in terms of years rather than months. In one case remaining well over four years, the tumor had been present for 48 years, and it is not rare to find the history dating back eight, ten or seventeen years. Discharge from the nipple occurs in 10 percent of the cases. The presumption is that colloid carcinoma is a type of mucoid degeneration which occurs in slowly-growing papillary cancers which follow upon a benign papilloma. In reviewing a large series of papillary cancers, areas of colloid change are not rare and in one case originally operated upon for papilloma, removed by local excision, the papilloma recurred and underwent malignant change, with colloid cancer co-existing in the section with papilloma.

Microscopically and in the gross, the tumor is characteristic. On incision the tumor material often flows from the wound. Under the microscope small rings of cancer cells are separated by a large amount of clear mucoid substance.

The treatment for colloid carcinoma is the same as for papillary cancer, the complete operation being performed with the chances of 60 to 70 percent of five-year cures. Even when the disease is not eradicated the patient may live ten or more years, with recurrences after long intervals. In this group are cases who have died with metastases or recurrence, six, eight, seventeen and thirty-five years after primary operation. The majority of them, however, have remained well where the complete operation was performed in the first instance.

#### **Gynecomastia, Fibroadenoma and Fibrosarcoma**

Gynecomastia in the male and fibroadenoma in the female are both characterized by proliferation of tubules, accompanied by growth of periductal connective tissue. Whereas papillary tumors are intraductal in origin, arising at the points of a previous branching during embryonic life, in the primary ducts, gynecomastia and fibroadenoma concern the peripheral growth of the duct system which occurs later in life, after the onset of adolescence. Both gynecomastia and fibroadenoma may give rise to unilateral or bilateral tumors. In females the peak of incidence of fibroadenoma occurs in post-adolescence, between the age of 20 and 25, but the majority of 500 cases were in adults. In gynecomastia, over one-fifth of the 90 cases occurred before the age of 25, but the majority were also in adults. While both are essentially hypertrophies of the duct system, some lobule formation may appear in fibroadenoma in the female (apparently in conjunction with the presence of the ovarian hormone), whereas lobule formation is never observed in gynecomastia, where the ovarian hormone is absent (but the anterior-pituitary-like hormone may occasionally be recovered from the urine in those cases showing testicular tumors).

**Gynecomastia:** Gynecomastia gives rise to a discrete tumor in two-thirds of the cases and to a diffuse hypertrophy in the other third. The enlargement is usually gradual and unaccompanied by symptoms. The disease may spontaneously subside, but the breast is often removed for cosmetic purposes. Occasionally irradiation has been followed by regression. In no case has malignant change been observed. Histologically the duct epithelium shows proliferation and occasional tendency to papillomatous formations. There is marked proliferation of periductal connective tissue of the embryonic type. No lobules are formed.

**Fibroadenoma and Intracanalicular Myxoma:** In fibroadenoma occurring at or after puberty, the growing ducts are surrounded by an active proliferation of periductal connective tissue. If the patient is older or the tumor is quiescent, myxomatous tissue predominates, compressing the ducts and giving rise to the type of tumor called intracanalicular myxoma. There is, however, no true distinction between fibroadenoma and intracanalicular myxoma. Both are benign, encapsulated breast tumors in females, occurring in single or married women in the outlying quadrants of the breast, usually single and occasionally multiple.

The appearance of a lump is the most common symptom of onset. In 2 percent of the cases a discharge is reported from the nipple and in 10 percent of the cases the lump is associated with trauma, and in another 10 percent with tenderness. The tumor may grow rapidly before observation and in rare cases (6) growth is observed in connection with pregnancy. In 2 of these cases of adenoma in pregnancy the lesion resembled cancer under the microscope. The average duration of the symptoms, in the entire group of 500 adenomas, was 36 months, compared with an average of 15 months in gynecomastia. In no case was there evidence of change toward cancer, if we except the epithelial proliferation observed during pregnancy. As in gynecomastia, the epithelium of the ducts may show papillomatous proliferation. This is to be expected with any growth of ducts, since papillomas are essentially a disease of the duct system.

**Fibrosarcoma:** In 22 cases, fibrosarcoma of the breast supervened, apparently, upon fibroadenomas of large size. This is the type of sarcoma referred to as sero-cystic sarcoma of Brodie and it is difficult to distinguish the giant benign fibroadenoma from fibrosarcoma. There is no sharp dividing line. The fibrosarcomas are of a low degree of malignancy. Whereas the small, localized fibroadenoma or intracanalicular fibroma may be treated by excision alone, these immense fibrosarcomas may require amputation of the breast. The large fibroadenomas in girls at puberty, which are definitely encapsulated, can be excised. Where the fibroadenoma histologically has the appearance of fibrosarcoma, the pectoral muscle should be removed, along with the entire breast. An axillary dissection is unnecessary, since the tumor does not metastasize to the lymph nodes.

(To be continued)

#### **DEATH AND DISEASE**

*Death does not hurt us, but disease does, because disease constantly reminds us of health, and yet withholds it from us.*—RABINDRANATH TAGORE.

# Laughter: Its Therapeutic Value \*

By Israel Bram, M.D., Philadelphia, Pa.

*"One inch of joy surmounts of grief a span,  
Because to laugh is proper to a man."*

—RABELAIS.

THE world has too many who would prefer to be pall-bearers rather than clowns. There are too many tears and not enough laughter. In brief, *the world is suffering from laugh-starvation*. Were a wholesome sense of humor and plenty of laughter universally prevalent, the majority of hospitals, sanitariums, doctors and nurses would be out of jobs and war itself would be relegated to past and dark ages.

Laughter is the language of peace, sympathy and harmony. It is the molasses of life that yields health, friends and worldly goods. No matter how expert he may be in diagnosis and treatment, the physician has not adequately performed his task until he has left his patient in a jovial mood. The actor who carries the house with him in convulsive laughter receives more compensation than the President of the United States. The lawyer who handles his case with skillful wit and provokes the jury to laughter often wins against superior legal talent. The teacher finds an occasional bit of fun of real value in awakening the student's keen attention. Even medical meetings need not be deprived of a hearty laugh.

Laughter is the most wholesome and rejuvenating of exercises, improving appetite and digestion, enhancing the freedom of circulation and respiration, giving a sparkle to the eye and the glow of youth to the cheek. Who has not seen the close relationship between a laughing disposition and a symptom-free body? The man or woman of jovial temperament eats well, lives well, sleeps well, works well and enjoys existence. The cheerful laughter awakens in the morning singing and whistling, all aglow with joy and happiness, radiating the sunshine of friendship and kindness to all who are fortunate enough to be in his presence.

## Anatomy of Mirth

On a clear Sunday afternoon, along Fifth Avenue, is seen a dignified, middle-aged gentleman in frock coat and high hat, rhythmically swinging a silver-handled cane. He is evidently a prominent financier and walks serenely along in profound meditation. Suddenly his heel strikes a banana peeling, the gentleman loses his equilibrium and *terra*

*firma* strikes him with a suddenness that recalls vividly all his astronomical information, to the exclusion of other practical knowledge. Within a twinkling of an eye, this formerly pompous individual has performed all these acrobatics as ungracefully as possible. You were standing on the other side of the street. As an average American, what has happened to you as a witness? Instead of hurrying over to the uplift of fallen humanity, you stand still and simply roar until your sides ache and tears roll down your cheeks in laughter.

The ludicrous spectacle observed entered your visual apparatus and reached the brain, where it found a sympathetic awakening corresponding to your conception of mirth, and you are in the throes of laughter. Reflexly, your face muscles, especially those of the mouth, assumed their characteristic expression; the muscles of the diaphragm went into a state of rhythmic contractions, and the expiratory movements of the lungs, due also to the contraction of the chest, caused gusts of breath to pass the contracted vocal cords, thus giving rise to the characteristic sounds of laughter. Somewhere in "Love's Labour Lost" Shakespeare says: "Oh, I am stabbed with laughter," indicating that, if laughter is prolonged and violent, the excessive tugging on the diaphragm may give rise to painful sensations. There are various gradations of laughter—from a faint smile to convulsive movements of the whole body. Often the contraction of the orbicular muscles of the eye during laughter results in the shedding of tears. This phenomenon has led philosophers to conclude that laughter and crying, joy and sorrow, have many features in common.

## Wit Versus Humor

Practical jokes may be classified under the heading of wit. Generally, laughter may result from either wit or humor. While these occasionally overlap each other, the terms are not synonymous. Wit may be differentiated from humor somewhat as follows:

### Wit

1. *Laughs at you*
2. *Possesses a sting*
3. *Is personal*
4. *Makes enemies*

### Humor

1. *Laughs with you*
2. *Engenders sympathy*
3. *Is impersonal*
4. *Makes friends*

The greatest funsters—after-dinner speakers, comedians and others in public life—are somewhat careful to differentiate between wit and humor. They are careful to be liked, not

\*One of a series of talks delivered at the Bram Institute for the Treatment of Goiter and Other Diseases of the Ductless Glands, Upland, Pa.

hated; careful to promote personal and social friendship, not repulsion. Such benefactors of humanity as Mark Twain, Jerome K. Jerome and Oliver Wendell Holmes had very few enemies. Wit can be so subtle as to conceal its true purpose and appear to present all the warmth of humor. Also, even obvious wit may be so funny as to secure immediate forgiveness from the victim who enjoys a good laugh. Wit is the implement of the satirist. Will Rogers has the genius of a humorist and a wit, but in his witticisms, even those against whom they are directed do not dislike him because of the sugar-coated humorous application of his remarks.

#### Samples of Wit

One of the finest specimens of wit was uttered by the Hon. Carroll D. Wright when he remarked: "I know it is said that figures won't lie, but unfortunately, liars will figure."

Here's one on the bachelor ladies:

A train robber was holding up a pullman car. "Out with your dough or I'll kill all men without money and kiss all the women," said the hold-up man.

An elderly man said austerely, "You shall not touch these ladies!"

An old maid in an upper berth shouted excitedly: "You leave him alone, who's robbing this train anyway?"

Arthur Guiterman reminds us that

"A jest, unduly pushed, becomes no jest;  
Remember always, too far East is West."

#### Samples of Humor

A few specimens of clean, warm humor for the doctor's armamentarium are included in the following anecdotes:

An Irishman who had just arrived in New York was taking his first walk, under escort of his brother, who had been living there several years. In the window of a shop he saw a great mound of fresh cranberries. "What are thim?" he asked.

"Thim is cranberries," said his brother.

"Are they fit to eat?"

"Are they fit to eat!" repeated his brother.

"Why, whin thim cranberries is stewed, they make better applesauce than prunes does."

A very lonesome American tourist in London went into a restaurant one morning and, after scanning the menu disconsolately, said to the waitress:

"I'd like to have two soft boiled eggs, and some kind words."

In due time the waitress returned, placed the eggs before him and started away.

"What about the kind words?" inquired the lonesome one.

With a quick glance around the girl bent over and whispered in his ear:

"Don't eat them eggs!"

A young bride walked into a drug store and approached a clerk timidly.

"That baby tonic you advertise," she began, "does it really make babies bigger and stronger?"

"We sell lots of it," replied the druggist, "and we've never had a complaint."

"Well, I'll take a bottle," said the bride after a moment. In five minutes she was back. She got the druggist into a corner and whispered into his ear:

"I forgot to ask about this baby tonic, Who takes it, me or my husband?"

#### Other Varieties of Laughter

There are species of laughter that cannot be classified under wit or humor. The laughter from being tickled is due to the presence, in the skin of certain portions of the body, especially the soles of the feet and the armpits, of hypersensitive nerve filaments, which, if touched lightly, give rise to a kind of pleasurable feeling inducing laughter. Incidentally, the phrase "tickled to death" is not devoid of significance. There are instances reported in which an individual was actually tortured to death by exhaustion through laughter caused by tickling.

The laughter of derision, ridicule, irony and hatred is well known; we have nothing to do with these forms of mirth, which may drive the victim to disaster.

The laughter of the hysterical individual is due to lack of adequate control over the emotions. Such a person, easily made to weep or laugh, is easily made to do almost anything, and is usually a good subject for the hypnotist.

Then, too, there is the laughter resulting from the obscene, which is classifiable under the highly undesirable forms of mirth.

As already indicated, laughter is most commonly produced by a situation in which someone else is placed in an inferior status, and we, as observers, find ourselves superior; the contrast tickles us, as it were, into laughter. Darwin, in his "Expressions of the Emotions in Man and Animals," remarks that in laughter the imagination is tickled by a ludicrous idea; this so-called tickling of the mind is curiously analogous with that of the body. The case of the drunkard hugging a lamp-post and conversing with it as with a dear friend is another example of this sort.

Patrick says remarks: "Custom and civilization forever urge upon us the conventional, the orderly, the customary, the usual, the regular, the coherent, the congruous, the proper, the refined and the logical. What we laugh at is the unconventional, the indecorous, the disorderly, the unaccustomed, the unusual, the irregular, the incoherent, the incongruous, the improper, the unrefined, the

illogical, the nonsensical and the eccentric. The great Newton, for instance, in a moment of absent-mindedness, made a hole in the fence for his hog to go through, and just beside it a smaller one so that the little pigs could go through."

The most wholesome laughter issues from children at play. Such laughter need have no wit nor humor to inspire it, being a constituent of the joy accompanying the play instinct. Adults, too, like children, are quite capable of laughter during play, deriving from it the most salutary physical and mental benefit.

### Laugh Prescriptions

When an emaciated, lanky, dyspeptic, grouchy, grunting mortal comes hobbling into the doctor's office, dolefully requesting an elixir of youth, the physician should begin by examining the patient's teeth to see whether they are fit for exhibition purposes. If necessary, the dentist is to be consulted. Then he should order, among other things prescribed by good doctors, a sound hearty laugh every hour, even if it hurts. He may begin the process by the use of a few choice anecdotes. As the result of this treatment the cooperative patient usually finds himself returning to the physician for the reduction treatment, financially embarrassed because of his ravenous appetite and the need for larger clothing. Then the doctor instructs him to worry himself thin in order that the process may be repeated—for must not doctors live? But this time even the most cooperative fail to follow orders, and the medico loses his patient, who dies a miserable death from giggles and eats at the age of 105 or thereabouts.

The tendency of today is to emphasize laboratory tests—the purely chemical and mechanical side of human beings—which, to be sure, are scientific, but, if unduly stressed, are often impractical. The understanding physician, who has studied humanity, knows that, too often, the cause of a physical ailment resides in emotional imbalance. While it is true that a sick body engenders a sick mind, the reverse is even more often true.

Though it is not the purpose of this paper to indicate the various types and grades of psychic maladjustment, one thing is certain: Irrespective of what ails the patient emotionally, the exercise of a basic sense of humor is an ally in therapy. Take a man who is ever so worried, ever so keyed up in anger or hysterical fear or panic over a situation, place him in the audience of a real humorist for fifteen minutes, and the former mental invalid soon becomes changed, capable of analysis of his problems with more logic and poise than before. While this result may be

expected of music and possibly of a good sermon, laughter—wholesome, hilarious humor—applied in proper dosage at the proper time, is the most powerful, the most relaxing and recreating of all psychologic corrective forces.

Hence, in addition to the taking of a careful history and making a careful physical examination and possibly some laboratory observations, the wise physician also makes a keen inventory of the patient's inner life, irrespective of the time and pains involved. Often there is little need for even the writing of a prescription. In many instances the most vital therapeutic need is the correction of a perturbing conflict in the nature of fear, jealousy, anxiety or possibly some psychosexual difficulty. Efforts at correction may require intimate conversations, not only with the patient but frequently also with one or more individuals involved in the situation. A sane attempt at such correction, with a permeating sense of humor, will yield most gratifying results in the vast majority of patients.

If only some of our serious-minded, fear-inspiring doctors of medicine would adopt a broad, benevolent, ineradicable smile and delve deeply into the missing link in therapeutics—the art and science of laughology! Not that the serious profession of medicine should present an outward silly grin. I do not advocate the transformation of professional men who have the lives and happiness of human beings in their hands into clowns. However, if we must accept extremes, the fellow with an indelible smile is a thousand times preferable to him who sees the world melting into chaotic smoke.

We are badly in need of an international society for the study and practice of wholesome humor. Today more than ever, we are badly in need of an *international mutual admiration society*. Had such a society been in existence and active prior to 1914, the world today would be as close to a description of Heaven on Earth as is humanly conceivable.

We are badly in want of a chair in the art and science of humor, to be endowed in every college in the country, even if this were to displace some courses in higher astronomy.

Someone has said that it requires the use of 26 muscles to make a smile, while it takes 62 to make a frown. Why overtax oneself?

Philosophers, ancient and modern, are still uncertain regarding the reality of life. If life is really a dream, let us all help make it a pleasant dream, for ourselves and our fellows, by laughter.

1633 Spruce St.

# Anterior Pituitary Therapy In Alopecia Totalis\*

By B. Norman Bengtson, M.D., Maywood, Ill.

**S**TUDIES on alopecia totalis, from both research and clinical viewpoints, present a far more interesting problem to the investigator than does its allied disease, alopecia areata. The latter is either so frequently self-limited or variable in its pathologic topography that conclusions as to specific benefit from a given therapy are necessarily difficult to evaluate. Alopecia totalis, on the other hand, is usually the culmination of a pathologic process, in that the individual has probably reached the final phase of his disease, clinically, and possibly pathologically. While spontaneous readjustments occur, particularly in the sudden *defluvium capillorum* variety concomitant with fevers, those afflicted continuously for over five years present an unfavorable prognosis as to spontaneous recovery unaided, unless they be young pre-adolescents. Further, the outlook becomes increasingly more dubious with each passing year, unless mild, spontaneous regrowths occur, seasonally or periodically.

I have experimented with pituitary preparations in various types of alopecia in the past, with apparent clinical improvement, but the spectre of coincidence has served to create doubt in my mind as to the correct evaluation of the pituitary regime. In consequence, a group of 35 patients with alopecia totalis were gathered for additional observation. The disease had been present for from 3 to 33 years in the various subjects, with an average duration of 11.3 years. The group was divided into two classes: the first, in which mild evidence of spontaneous regrowths, particularly lanugo, had occurred periodically; the second, in which there had been no pilary evidence since the primary hair loss. The majority of the group had run the entire gamut of recognized therapies and nostrums, varying from medicinal to physical therapies, assiduously from the inception of the disease, with little or no clinical improvement.

The etiologic factors were varied. Some followed the various diseases associated with prolonged pyrexia, such as typhoid or the various contagious diseases (outstanding, rubeola and pertussis) or severe frights; while others seemingly could give no ascribable cause. The youngest patient under observation was six and the oldest forty-nine years of age. There were 21 males and 14 females under observation. The period of experimentation, thus far, has been nineteen months. Therapy has consisted of intramuscular injections of anterior pituitary substance (Lilly), in doses

varying from 1 to 2 cc., three to five times weekly.

## Results

Four (4) males and 1 female developed complete head and body hair. (Fig. 1.) These had previous histories of 25, 8, 7, 3, and 3 years of total baldness.



Fig. 1.—Result of 19 months of anterior pituitary treatment, in a patient who, for 7 years, suffered with alopecia totalis, without spontaneous regrowths. The new hair is darker and coarser than the old.

Four (4) males and 2 females developed complete pubic and axillary hair, together with eye lashes and brows. (Fig. 2.) The males in each instance were forced to shave from one to five times weekly. Head hair was stimulated to obvious growth, but was far from gratifying.

Four (4) females and 3 males developed patches of terminal head hair of excellent quality (Fig. 3), with moderate pubic, axillary, brow and lash stimulation, causing some of them to appear as cases of alopecia areata. (Fig. 4.)

Three (3) females and 9 males developed moderate to scant pubic, axillary and chest hair (males), with scant to occasional lashes and brows.

Two (2) females developed terminal head and body hair of good quality, which grew rapidly and then fell out. This has repeated itself several times.

Two (2) females developed head lanugo of good quality, with occasional pubic and axillary hair, but have, to this time, made no further progress.

\*This is the third of Dr. Bengtson's series of articles.



Fig. 2.—Alopecia totalis for 16 years; slight spontaneous regrowths, but hair fell out again. (A)—left) Beginning terminal hair growth after anterior pituitary treatment. (B) Sixteen months later.

One (1) male evidenced no influence whatsoever from the therapy. He was a blond.

#### Concomitant Symptoms

*Easy exhaustibility*, a complaint of 31 of the series, seemed to be completely relieved in 18; improved in 11; with no improvement in 2.

*Nervous irritability* and emotional instability, a complaint in 9 of the group, seemed to disappear completely in 7; improved in 1; and showed no change in 1.

The *basal metabolic rate* was within normal limits in 11, and varied from minus 12 to minus 30 in 28 of the subjects. Those within normal range increased slightly; whereas those far below increased to normal variations (minus 10 to plus 10), except 2, who apparently were uninfluenced.

Seven (7) of the group were married, and these were questioned relative to changes in sexual desire or capability. Five (5) claimed increased desire and function, while 2 were uninfluenced.

*Headaches*, a complaint of 4, were completely relieved in 2; improved in 1; and showed slight improvement in 1.

*Menstrual disturbances*, from moderate to the complete amenorrheic type, were a complaint in 4 females. This was completely adjusted in all, so that menstruation occurred regularly at from 28 to 35 day intervals. For the purpose of information, 2 of this group were withheld from therapy for two months. One had a return of headache and no menstruation; the other a scant two-hour flow. On returning to pituitary therapy, both again regularized in catamenial function.

*Constipation*, apparently atonic in type, a complaint in 12, was completely relieved in 10 and moderately improved in 2.

The *blood pressure* tended to be low in the entire series, except in the young pre-adolescents, in which it was not recorded. The lowest reading was 80 systolic; 54 diastolic. The general average systolic was 102. The pressure increased in the majority of patients, so that the average pressure increased to 116 systolic. One patient increased to 160 systolic, but on decreasing dose the systolic pressure rapidly decreased to 126.

The *pulse* of the patients was, in the main, low. While there were a few above 70, a pulse rate of 60 was common and, in one instance, the rate was 50. The pulse became accelerated after pituitary therapy, so that the average pulse increased to the low seventies and, in a few instances, to 90.

The *weight* increased in all patients of this series. The smallest gain was  $1\frac{1}{2}$  pounds; the greatest, 13. The weight variation in this series did not follow the same regularizing trends as in previous series.<sup>1</sup>

Measurements in relation to weight and age (Engelbach's chart) were less, moderately, than normal requirements in most of the patients. There was no change after pituitary therapy, in this group.



Fig. 3.—(A—left) Alopecia totalis of 16 years' duration, with concurrent asthma and epileptiform seizures; feeble spontaneous regrowths first seven summers—none since. (B) After one year of anterior pituitary treatment; asthma and convulsions improved.

Urine, by quantity and quality, was essentially negative in all the subjects prior to therapy. Excretion continued negative, qualitatively and quantitatively, during and subsequent to treatment.

Nail pitting was present in 20 of the subjects and excessive brittleness or softening was observed in 18. Pitting disappeared in 6; improved in 4; and showed no change in 10 under pituitary treatment. Brittleness or softening disappeared in 4; with no change in 14 under therapy.

The red blood counts and hemoglobin were generally low. Hemoglobin percentages of 65 (Dare) were common. Red cell counts of three million to four million were in the majority; whereas normal counts were the exception. Pituitary therapy had a moderate influence, especially in seeming to increase the hemoglobin percentage. The number of red cells seemed uninfluenced in this series, except in occasional subjects.

Roentgen-ray examination of the sella turcica in 22 patients revealed the saddle to be shallow or flat; or an approximation of the anterior and posterior clinoids; or below Cushing's 10x15 mm., in 16 of the subjects.

Prostatic examination in the post-adolescent males was negative before and after treatment.

The peculiarity of the jet-black-haired types in responding to pituitary therapy, as con-



Fig. 4.—Showing typical hair regrowth (left to right) in alopecia totalis after anterior pituitary treatment. Hair seems to return in reverse order from which it fell out.

trasted with the often indifferent results in the blonds was, as in previous series, observed in this group.

All of the patients that seemed to respond, demonstrated beginning pillary evidence (mainly lanugo) within twelve weeks after the commencement of pituitary injections.

There were no untoward symptoms noted in any of the patients as result of this therapy.

Every one in the series began with spot baldness and then, either rapidly or slowly, developed the universal form.

The group with periodic or seasonal restitution prior to pituitary therapy evidenced the most satisfactory stimulation.

The patients without nail pitting or undue softening seemed to respond far better than those so affected.

#### Discussion

Jackson and McMurtry<sup>3</sup> write that alopecia universalis is always of grave prognosis and, if continuous more than two years, nothing more than partial restitution is to be expected.

Hubbard<sup>3</sup> suggests an even more gloomy outlook, in that the longer the period of total baldness extends beyond six months, the less is the probability of regrowth.

The average duration of the disease in this group exceeded the more favorable of these opinions by more than nine years. Further, it is not reasonable to suppose that over 30 unselected subjects should evidence attempts at restitution coincidentally, within twelve weeks from the inception of pituitary injections. These facts, together with the apparent response to treatment by the majority of this group, with either lanugo or terminal hair, in a rather short time period, has caused me to feel that a therapeutic relationship exists between the anterior pituitary and certain alopecia universalis cases.

Of possible interest, as a corroborative evidence in my belief that this disease is an an-

terior lobe hypo-function, are the certain similarities between alopecia totalis and Simmonds' disease.<sup>3</sup> While anterior hypophyseal cachexia has certainly the more obvious symptoms, both show easy exhaustibility, hair loss, frigidity, low metabolism, hypotension, low hemoglobin, emotional instability, objective aging, and menstrual, mesodermal and ectodermal disturbances. The degree and diversity of subjective and objective disturbance might be explained by the inequality of inaction of the various hormonal entities in alopecia, as contrasted with Simmonds' disease.

Stanley and Hawkins,<sup>5</sup> interested by my preliminary report, made direct implantations of the anterior pituitary glands of sheep into 14 prisoners at San Quentin. They claim that 29 percent developed a marked head-hair growth; 50 percent showed no stimulation; while the remaining 21 percent developed oily scalps, or dandruff disappeared, or they showed increased definite body-hair growth. These data served to corroborate my theoretic contention of anterior lobe influence on the pillary system and confirm the clinical results thus far obtained in this and prior series reported.

I believe that failure to obtain more complete and gratifying end results in this series, following apparent primary stimulation, is the result of two different factors. First, the body, after preliminary saturation, begins to build up an immunity against the foreign replacement, after which defensive mechanism of protection it returns to its former state of endocrine sluggishness. The fact that some continued to apparent cure could be explained on the basis that those fortunates were borderline cases of mild degree, that needed but little replacement encouragement for reestablishment of function. Second, the present glandular products used are but crude extracts, dehydrated, extracted, sterilized and

stored in unphysiologic ampules, as contrastive to the certainly more potent substance or specific hormone manufactured by the normal gland itself.

### Summary

Anterior pituitary substance, by hypodermic injection, is believed to have been responsible for hair growth and other evidences of betterment observed in this series of patients.

Increasing interest and subsequent research by other clinical investigators or physiologic chemists may eventually result in the discovery of a specific hormone whose sole influence concerns itself with the health and growth of the hair.

Periodic stimulation with anterior pituitary extract, alternating two weeks of therapy and two weeks rest, seemed to give the best results in this series.

### Bibliography

- 1.—Bengtson, B.: Pituitary Therapy of Alopecia. *J.A.M.A.*, 97: 1355-8, Nov. 7, 1931; Anterior Pituitary Therapy of Premature Alopecia. *Clin. Med. & Surg.*, 40:207, April, 1933; Anterior Pituitary in Alopecia Areata. *Clin. Med. & Surg.*, 40:347, July, 1933.
- 2.—Jackson and McMurtry: "Diseases of the Hair." pp. 118-119.
- 3.—Hubbard: "Diseases of the Hair and Scalp." p. 180.
- 4.—Riecker, H. H. and Curtis, A. C.: Hypophyseal Cachexia. *J.A.M.A.*, Vol. 99, No. 2, July 9, 1932.
- 5.—Stanley, Leo and Hawkins, Joseph: Implantation of Anterior Pituitary Glands in Alopecia. *Med. J. and Rec.*, June 7, 1933.  
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## Armervenol in Pneumonia

By Arthur E. McMahon, M.D., Glenwood City, Wisconsin

**B**ECAUSE of its universal distribution and the high mortality which attends it, pneumonia is a problem of great interest to every physician. Our chief effort is, of course, directed to the treatment of this disease. We are constantly searching for something better and more efficacious in reducing the mortality.

Three years ago, or more, I began to read reports on the use of Mervenol and Armervenol in the treatment of various infections. I saw a few reports where it had been used with great success in the treatment of pneumonia. These led me to give it a thorough trial in the treatment of this disease in my own practice, and I wish to report my results.

Why does the pneumonia patient recover? The answer is that he develops within himself enough immunity to the invading organism and its toxins to overcome the infection. This accounts for the crisis often seen in lobar pneumonia, and also for the less dramatic termination by lysis, seen in some cases of lobar pneumonia and nearly all bronchopneumonias.

For the past two years I have used Armervenol, orally, in every case of pneumonia I have attended. There have been in all 40 cases—25 males and 15 females. There were 26 cases of broncho-pneumonia and 14 of the lobar type. The ages of the patients ranged from three months to eighty years. Thirty-eight (38) recovered and 2 died, a mortality rate of 5 percent. I realize this is a small series of cases, yet in examining my records, I cannot find any other forty consecutive pneumonia cases with only two deaths.

Armervenol, made by the Hille Laboratories, of Chicago, is colloidal mercury-copper sulpharsenite. It is of value because it definitely and positively increases the leukocytes

or phagocytes. In a series of 582 cases of pneumonia, studied at the Johns Hopkins Hospital, it was found that, with a leukocyte count of 10,000 or under, the mortality was high—about 60 percent, but in those cases showing a count of 20,000 to 30,000, the mortality was relatively low—between 10 and 15 percent. This helps to support the cellular theory of immunity. Whether or not this theory is widely accepted, I do not know; but I believe it is the correct one.

### Case Reports

Allow me to outline briefly a few cases:

**Case 1:** R. P., age 38, farmer, on April 25, 1931, following exposure to cold and rain, was seized with severe pain in the left side of the chest, followed by fever and cough.

I saw him the next day and found: Temperature, 103.6° F.; pulse, 112; respirations, 30. There was frequent cough, with blood-tinged sputum. The left lower lobe was dull to percussion, and on auscultation showed loud bronchial breath sounds. **Diagnosis:** lobar pneumonia.

The treatment consisted of the usual supportive measures, with 20 drops of Armervenol four times a day. Crisis occurred April 28, three days after the onset. Convalescence was uneventful.

**Case 2:** M. H., age 7, on December 19, 1931, "came down with a cold," which rapidly became worse. I saw her first on December 22 and found: Temperature, 103.8° F.; pulse, 120; respirations, 40. The percussion note was somewhat impaired in the right axilla and at the right base, posteriorly. Fine and coarse râles were heard over the right base and low in the right axillary line. The next day, small areas of bronchial breathing with râles were found scattered throughout the right lung. **Diagnosis:** broncho-pneumonia.

The patient was given 10 drops of Armervenol four times a day, in addition to other measures. On Dec. 25 I found: Temperature, 98.6° F.; pulse, 90; respirations, 24. The course from that time on was uneventful.

**Case 3:** Baby H., age three months, weight twenty-one pounds, breast-fed, had developed

a cold on March 4, 1932, which gradually became worse. I saw him on March 8 and found: Temperature, 101.8° F. (rectal); pulse, 130; respirations, 40. Scattered râles were heard all over both lungs. The patient was cyanotic, very listless and apparently quite toxic. *Diagnosis:* broncho-pneumonia.

Besides the usual measures, Armervenol was given, 10 drops four times a day.\* In spite of all treatment the pulse and respirations became faster, while the temperature fell to between 99° and 100° F. (rectal), where it remained. The Armervenol was increased to 10 drops every four hours (six doses in twenty-four hours). There was no response. On Mar. 12 the baby became stuporous, with a pulse rate of 180 and respirations of 80. Death occurred on Mar. 13.

*Case 4:* W. B. K., age 80, at about 11:00 P.M. on May 18, 1932, was seized with severe pain in the right side of the chest. Respiration was especially painful. I saw him about 2½ hours later, and found: Temperature, 100.4° F.; pulse, 84; respirations, 24. Expansion on the right side was limited. There was an expiratory grunt. On percussion, the note was impaired over the entire right lower lobe. Over the right lower front and axilla, a loud pleural rub was heard, with a few moist râles. *Diagnosis:* probable pneumonia.

Treatment was instituted, giving Armervenol, 20 drops four times a day. The rub disappeared within three days and intense bronchial breathing was heard over the entire right lower lobe. His general condition now seemed much worse, and the Armervenol was increased to 20 drops every four hours.

For the next twenty days his condition remained very critical. The temperature never reached 101° F., but the pulse increased up to 120, being weak and intermittent much of the time. Respirations were never more than 28 to the minute. It seemed almost certain that he would not recover; but on June 10 he became noticeably better; the next day the temperature, pulse and respiration became normal, and from that time he enjoyed a normal convalescence.

*Case 5:* Baby A., age 11 months, was seen first on May 2, 1932, with the history of having developed a cold two days before. At the time of my first visit I found: Temperature, 102° F. (rectal); pulse, 120; respirations, 40. There was a scattering of coarse and fine moist râles over both lungs. The percussion note was not impaired. *Diagnosis:* broncho-pneumonia.

On the next day I found: Temperature, 102° F.; pulse, 136; respirations, 50. Both lungs were full of râles and the patient quite toxic.

I prescribed Armervenol, 10 drops 4 times a day, in addition to the usual pneumonia care.

On May 4: Temperature 99.6° F.; pulse, 136; respiration, 46; patient cyanotic; many râles in both lungs. On May 5 a marked change was seen: Temperature, 98° F.; pulse, 110; respiration, 40. The cyanosis had disappeared and the lungs were much more clear.

\*This dose was excessive for an infant of three months. Two to four drops would have been sufficient. A dose of five drops would have been adequate in Case 5.—Ed.

On May 6: Temperature, 98.6° F.; pulse 88; respiration, 24; lungs clear; color and appetite good. Recovery uneventful.

### Comment

Case 1 represents a typical lobar pneumonia in a young, previously healthy adult. The point I wish to emphasize is *that the crisis occurred in three days*. The sooner the crisis occurs, the better it is for the patient.

Case 2 illustrates broncho-pneumonia in a child, who, by the way, was previously undernourished and ill-cared-for. It ran its entire course in less than a week.

In case 3 we see broncho-pneumonia in a fat, over-weight baby. It again reminds us that the very young and the over-weight patients do not stand pneumonia well. It also reminds us that it is important to begin treatment at the earliest possible moment. These over-weight patients, old or young, do not respond well to treatment. Their defensive mechanisms fail to function to any great extent.

Case 4 is one of pneumonia in the aged. It is variously estimated that from 60 to 80 percent of these patients die, *yet in this series, not one of the aged patients died*, and I believe it is more than just good fortune, for there were seven who were over seventy years of age.

Case 5 illustrates broncho-pneumonia in a well-cared-for, previously healthy baby, who was well on his way to recovery in four days.

I do not claim that Armervenol is a panacea, or that it works miracles. Neither do I claim originality in its use in pneumonia. I would not abandon those procedures which have proved to be of great value in the treatment of pneumonia, such as fresh air, adequate nourishment, rest, hydrotherapy, support of the circulation when necessary, and *foremost of all, careful nursing*. Armervenol is simply used in addition to these measures, but I am convinced that it often turns the tide toward victory, in battles which otherwise would be lost.

When I have often seen the course of pneumonia prolonged to ten days or two weeks; when I have seen 20 to 25 percent of the patients die, even under the best of care; and then see forty cases with but two deaths, with most of the cases running their entire course in less than a week, it compels me to believe that we have, in Armervenol, a very valuable adjunct in the treatment of pneumonia and one which merits serious consideration and a thorough trial by the whole profession.

### TRUTH AND LIES

*It is said that the truth is a long time catching up with a lie, but as truth is enduring and the lie is merely a false belief about the truth, in the end the latter is bound to prevail, even in these days of organized propaganda.*—COMMITTEE ON AMERICAN EDUCATION.

# Ovarian Insufficiency and Mental Disorders

By John T. Nerancy, M.D. (Clinical Director), and D. L. Steinberg, M.D., Elgin, Ill.;  
and James H. Hutton, M.D. (Consulting Endocrinologist), Chicago, Ill.

All of Elgin (Ill.) State Hospital

THE profound effect of endocrine function on mental condition is so obvious and so much a matter of common everyday observation that one wonders at the little attention it has attracted from the medical profession. By way of illustration, the cretin seldom attains a mental age of more than twelve years; myxedema is accompanied by mental retardation, sometimes to the point of incompetence; Graves' disease is accompanied by profound changes in the nervous and mental reactions of the body and occasionally a psychosis accompanies it, apparently due to this condition—at any rate, the psychosis clears up after sub-total thyroidectomy; parathyroid tetany is accompanied by a complete upset in the mental and emotional sphere.

The ovaries affect the mental and emotional reactions perhaps more profoundly than any other of the endocrines. This is a matter of common daily observation. The change in the mental viewpoint and emotional set-up at puberty is one example. The changed status during pregnancy is another. The psychosis which sometimes follows delivery is another. The complete transformation of some women at the menopause is still another.

The relation of menstrual disorders and of changes associated with puberty and the menopause is particularly striking in female patients in hospitals for the insane. Among the patients examined at the Elgin (Illinois) State Hospital from May, 1931, to November 1, 1932, one hundred and seventy-three (173) were found to have some endocrine dyscrasia. Seventeen (17) of these were women whose endocrine disorder was believed to be primary ovarian insufficiency. This diagnosis was based on: (1) the history of menstrual disorders—late onset of puberty, amenorrhea, oligomenorrhea, dysmenorrhea; (2) exclusion of non-endocrine causes of these disorders; (3) exclusion of other endocrine dyscrasias; and (4) inclusion of positive findings of ovarian insufficiency—long lower measurement; lowered glucose or galactose tolerance; lymphocytosis; gastro-intestinal upsets—abdominal pain, nausea and vomiting.

## Treatment

Two (2) patients were given nothing but theelin, one ampule every third day, beginning about ten days before the period. Both were discharged as recovered. Two (2) others were given ovarian residue, one ampule on alternate days, beginning at the close of one period and continuing until one week before the next, when theelin was substituted for

the ovarian residue. One, age 38, was suffering from the catatonic form of dementia precox and the other, age 23, from the hebephrenic form. Both were discharged as recovered.

Eight (8) were given ovarian residue alone, one ampule two or three times a week, without regard to the menstrual periods. Five (5) of these, aged 25, 25, 31, 42 and 46 respectively, are still in the institution. All were cases of dementia precox, 3 of the paranoid and 1 of the hebephrenic type and 1 unclassified. Of the other 3, who are out of the institution, 1 was a case of involutional melancholia, age 49, discharged as recovered; 1 was a hebephrenic precox, age 31, paroled; 1 was a paranoid precox, age 37, discharged.

One hebephrenic was given ovarian substances by mouth, without any discernible effect. Two (2) patients were given Progynon by mouth. One, age 15, was a catatonic; the other, age 18, dementia precox unclassified. Both were discharged as recovered.

One manic depressive, age 27, was given ovarian residue, one ampule twice a week from the close of one period until one week before the next, when corpus luteum was given, one ampule on alternate days until the flow started. She was discharged.

One mental defective was given theelin twice a week during two weeks out of each month and light doses of x-rays to the ovaries. She showed no improvement.

## Results

Of these 17 patients, 9 have been discharged and 1 paroled. Some improvement has occurred in some of the others, but this has not proceeded to the stage where they can be discharged or paroled from the institution. These cases are summarized in the table on the following page.

Of the 10 out of the institution, 9 are under 45 years and 1 over.

Of the 7 which did not get out, 6 are under 45 and 1 above.

There were 12 dementia precox patients; 4 of the paranoid type (1 discharged); 4 hebephrenic (1 discharged and 1 paroled); 2 catatonic (2 discharged); and 2 unclassified (1 discharged).

The ovarian preparations were administered hypodermically. It is our feeling that desiccated ovary by mouth is effective in young women, perhaps up to the age of 20 years. After that age it requires very large doses to be effective. The use of the hypodermic was not disturbing to these patients. Apparently

| Age | Mental Diagnosis* | Treatment                                     | Outcome    |
|-----|-------------------|---|------------|
| 23  | Undiagnosed       | Theelin                                       | Discharged |
| 27  | M. D. Mix.        | Ovarian residue, corpus luteum                | Discharged |
| 46  | D. P. U.          | Ovarian residue                               |            |
| 38  | D. P. C.          | Theelin, ovarian residue                      | Discharged |
| 15  | D. P. C.          | Progynon                                      | Discharged |
| 43  | M. D. M.          | Theelin                                       | Discharged |
| 23  | D. P. H.          | Theelin, ovarian residue                      | Discharged |
| 37  | D. P. P.          | Ovarian residue                               | Discharged |
| 49  | I. M.             | Ovarian residue                               | Discharged |
| 27  | D. P. H.          | Ovarian hormone by mouth                      |            |
| 31  | D. P. H.          | Ovarian residue                               | Paroled    |
| 42  | D. P. P.          | Ovarian residue                               |            |
| 39  | D. P. P.          | Ovarian residue                               |            |
| 36  | Ment. Def.        | Theelin, x-ray of ovaries (stimulating doses) |            |
| 25  | D. P. H.          | Ovarian residue                               |            |
| 25  | D. P. P.          | Ovarian residue                               |            |
| 18  | D. P. U.          | Progynon                                      | Discharged |

it was no more distasteful to them than it is to the ordinary diabetic patient taking insulin.

We are not convinced that the standardized ovarian products contain all of the active principles of the ovary. We are of the belief that the commercial products of the ovary are more effective than the standardized ones, whose activity appears to be centered entirely in their estrogenic properties. In private practice we have found ovarian residue to be so regularly active and so effective when its use is preceded by a proper diagnosis, that we prefer it to more expensive standardized preparations.

\*Explanation of abbreviations under Mental Diagnosis:

- M. D. M.—Manic depressive, manic phase
- D. P. C.—Dementia precox, catatonic
- D. P. H.—Dementia precox, hebephrenic
- D. P. P.—Dementia precox, paranoid
- D. P. U.—Dementia precox, unclassified
- I. M.—Involuntal melancholia
- Ment. def.—Mental deficiency.

Some 30 additional cases were found having ovarian insufficiency, combined with pituitary or thyroid or both pituitary and thyroid deficiency. While a number of these patients were improved to the point of being able to leave the hospital, the percentage was not so striking as in the pure ovarian insufficiency. There is no reasonable doubt that ovarian disturbances many times accompany, if they are not responsible for, mental disorders. The correction of this endocrine defect will undoubtedly be found to have a very favorable influence on the patients' mental state.

The number of cases is too small to permit any enthusiasm as to this line of treatment or to furnish the basis for any sweeping conclusions. It should point the way for further intensive study. It offers a suggestion for the treatment of some cases of emotional upsets that do not approach the degree of a psychosis.

#### GRAFT AND "WELFARE WORK"

When public officials spend our taxes in handing fat contracts to their henchmen we call it "graft." Generally speaking, graft has become rather unpopular, and this system of increasing taxes in order to destroy the private property right was not working rapidly enough. In a gigantic and rich nation such as ours, it was having little effect. So we find a new system in operation. Graft, save in isolated instances, has disappeared and governmental benefactions have taken its place. Is there, in fact, any difference between giving a contract to build a stretch of road to a friend who makes an excessive profit and giving the same amount of money to some group, section or interest, claiming it to be for the "general welfare" of all? The amount of money taken from the taxpayers in the way of graft is infinitesimally small compared to the amount taken from them through some form of public benefaction—the so-called subsidy system; so-called welfare work.—COMMITTEE ON AMERICAN EDUCATION.

# PHYSICAL THERAPY AND RADIOLOGY



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## Diagnosis or Treatment?

**A**N INTERNATIONALLY recognized diagnostician has said: "In diagnosis, as in therapeutics, 'What do you find valuable?' is the question."

The office of the physical therapist is the clearing house for the unfortunates who have failed to secure desired results elsewhere. These clinical derelicts have usually been elaborately and protractedly examined by many and various experts, with the assistance of every aid known to scientific medicine. Some of them have had a definite diagnosis made and been thoroughly treated in accordance with it; others have been diagnosed as not having any sufficiently objective symptoms to warrant a nosological appellation. Naturally, in such cases, the physical therapist can hardly be expected to evolve any brilliant diagnosis, but a history of all the diagnostic and therapeutic procedures previously undergone by any given patient should unerringly guide the student to some one or more of the physical therapy agencies so readily available and, in all but moribund and some exceptional patients, thereby accomplish therapeutic wonders. In consequence, it has been charged that the physical therapist is more concerned with treatment than with diagnosis. Considering the notoriously erroneous or argumentative diagnoses so frequently made; the burdensome cost of many unnecessary diagnostic procedures; and the disproportionate ratio of diagnostic service and cost to beneficial therapeutic service, the physical therapist sensibly

prefers the substantial thanks of a benefited patient to the barren honor of an exhaustive but therapeutically ineffectual diagnosis, however scientifically conducted.

Correct diagnosis and correct therapy combine to make the most successful practice, but "Faith without works availeth nothing." Diagnosis leading only to a pessimistic prognosis, or that is powerless to suggest ameliorative measures, is not satisfactory to the person most vitally concerned—the patient himself. The simpler, ever-available agencies of heat, hydrotherapy, massage and passive exercise are valuable, but too often ignored, measures which should be thought of during the early stage of sickness and disability. The indefinite beginnings of impaired health and the definite but diffusely complicating symptoms of chronic disease and disability, definitely indicate a need for some physical therapy treatment. Such treatment, precisely selected and expertly applied, will often *cure*, according to the patient's grateful understanding, in spite of an indefinite diagnosis.

Realizing the impossibility and inadequacy of an exact diagnosis (from a therapeutic outcome) in a large proportion of cases, and admitting the possibility of frequently determining some physiologically indicated therapy, physical or otherwise, this latter should logically appear as the more important factor in the vital problem of attempting to substitute health for ill-health. Indefinite symptomatology may only lead to an indefinite diag-

nosis, but will often satisfactorily indicate definite and successful physical therapy treatment. "There is not only an art in knowing a

thing, but also superior art in successfully practising it."

J. E. G. W.

## Notes from the Congress of Physical Therapy

Reported by George B. Lake, M. D., Chicago

THE twelfth annual scientific and clinical session of the American Congress of Physical Therapy, held in Chicago in September, seems to have been a success from all angles. The attendance was good and the program excellent. I regret that the pressure of other duties prevented me from reporting more of the fine papers presented.

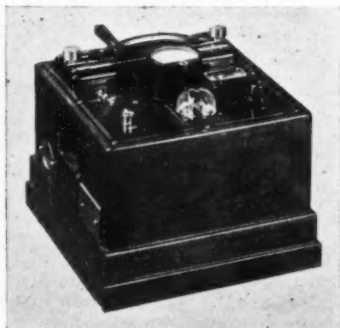


Fig. 1.—Short-wave Generator.

The exhibits were not so numerous as they have sometimes been, but were highly instructive. Many improvements of standard apparatus were shown and at least two new things: The outfit for applying ultraviolet radiations to all the accessible cavities—stomach, bronchi, bladder, kidney pelvis, etc., presented by the Lepel people (Figs. 1 and 2); and the ThermR, for applying heat directly to the rectum, bladder, vagina, etc., and also for producing artificial fever. Both of these machines seem to have a considerable and worthwhile field of usefulness.

### Physical Therapy and Scientific Medicine

By Nelson Morris, M.D., Toledo, Ohio

All beliefs are the result of observation. Later or newer ideas are better than the older ones only to the extent that they are based upon more accurate and complete observation. Both the old and the new ideas are worthy of careful study and acceptance on their merits.

We have no more reached ultimate truth than our fathers had. The science of any generation is what it believes it knows. Scientific medicine is on this basis and is subject to the findings of larger experience and wider knowledge.

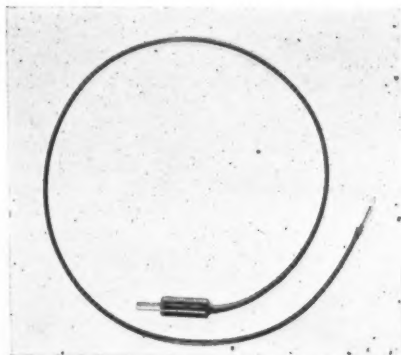


Fig. 2.—Applicator for Internal Ultraviolet Irradiation.

Physical therapy is the outgrowth of man's earliest efforts to cure disease, and includes everything but drugs, surgery, dietotherapy and psychotherapy. Rest may be administered without valid indications and in excessive doses, just like a drug, and must be combined, for best results, with exercise or massage.

Scientific physical therapy has developed since the War. Before that, these methods were largely in the hands of the irregulars—and to a considerable extent they are there now.

Regular physicians will not do their full duty nor receive their full reward until they understand and use the various available physical methods of treatment. Besides their physiologic effects, these have certain definite psychic effects; and they are no more fool-proof than are drugs, surgery or psychotherapy, so they need thorough study for their successful use.

### Physical and Occupational Therapy

By Frank H. Krusen, M.D., Philadelphia, Pa.

In most high-class hospitals today, the physical therapy department is under the charge of a physician; while occupational therapy is left to a technician. In both lines of work, more depends upon the technician who administers them than upon the physical equipment available, and technicians should be trained in both.

These two methods of treatment should be

closely coordinated, because good occupational therapy frequently makes physical therapy more effective. The two departments in an institution might well be combined, thus saving space and administrative overhead, and the same physician could then supervise both and the two types of treatment could be given simultaneously, which is frequently a valuable procedure.

In fractures of the forearm, pronation and supination are the hardest movements to restore. Here weaving, the use of a screw-driver, etc., produce the best results. In hemiplegia and heart disease, occupational therapy is often of the highest value.

We must not forget that simple exercises at home are an important part of occupational therapy. Sweeping, typewriting, the use of a pedal sewing machine or a bicycle, and such-like, if intelligently considered, may well be made a part of the physician's prescription. Mental, as well as or more than physical improvement, is important.

### Physical Therapy in Office Practice

By W. H. Guillian, M.D., Long Branch, N. J.

A few case reports will illustrate some of the ways in which physical therapy can be used in office practice.

*Case 1.*—A young man of 18 years came in with a temperature of 100.4°F. and an incessant, productive cough, which was unrelieved by various cough syrups.

I gave him 8 diathermy treatments through the chest, using large electrodes and a current of 1,800 milliamperes for from 30 to 60 minutes. The cough was entirely relieved.

*Case 2.*—A girl came to me with a severe cold; temperature 100.4°F.; both ear drums ruptured and ears suppurating. She would not stay in bed and take care of herself, as directed, and the next day the discharge stopped and symptoms of bilateral mastoiditis developed.

I prescribed continuous phototherapy in her home, shifting the light from one mastoid to the other every hour or two, and in 24 hours the discharge was reestablished. After two days I reduced the treatments to periods of two hours, with a rest of two hours between. Both ears were clear at the end of one week.

This treatment can and should be given in all cases of mastoiditis, while the otologist is deciding whether or not to operate, and will frequently obviate the necessity for surgical intervention.

### Discussion

By Dr. Norman E. Titus, New York City

It is even more necessary to recognize the contraindications to physical therapy than it is to know the indications, so that we will

not use it inadvisedly and bring these methods into disrepute. A shot-gun prescription of physical agencies is just as unscientific and dangerous as one containing drugs—perhaps more so.

In hemiplegia, when the blood pressure is steady, use diathermy, followed by galvanism, through the brain.

In early Bell's palsy, use light and the static wave current. The latter will also clear up synovitis with effusion in a week.

The term, "sciatica," is a misnomer. The sciatic nerve is not involved, so there is no neuritis. We have treated 660 cases called by that name, and have found them to be due to pressure on the nerve at the sciatic notch, the result of muscle spasm—myositis. The static wave or sinusoidal current will relieve these patients promptly.

### Ultraviolet Treatment of Erysipelas

By Norman Titus, M.D., New York City

Director of Physical Therapy, College of Physicians and Surgeons of Columbia Univ., and the Medical Center

Following up the work of Dr. Walter H. Ude, of Minneapolis, experiments were made to determine how ultraviolet rays work in the treatment of erysipelas.

The gist of the results obtained through laboratory research tended to show that ultraviolet rays are not bactericidal *in vivo*. It seems that the oxidation process brought about by this form of energy has a chemical effect upon the tissues themselves. The most prominent result of the research seemed to show that the ultraviolet energy increases the resistance of the tissues to the sensitizing action of endotoxins extruded by the streptococci causing erysipelas. Clinical experiments tried on patients seemed to rule out specific bactericidal action upon the organisms living in the skin.

The dose of ultraviolet energy used is twenty times the erythema dose. Using a lamp that will cause an erythema at thirty inches in one minute, the lamp is lowered half the distance, thereby increasing the intensity four times. A 5-minute exposure is given to adults. Babies are given a 2- to 2½-minute exposure, and young children 3 to 4 minutes. It seems imperative that a very strong reaction be obtained and patients are treated on consecutive days, one sunburn being caused on top of the other. A mildly uncomfortable sunburn results, but in view of the fact that it causes a rapid drop in temperature and relief of symptoms from toxemia, patients seem to disregard the sunburn, which is treated locally as desired.

At Grasslands Hospital, Valhalla, N. Y., comparative tests were made with antistreptococcal serum and ultraviolet rays. Patients

receiving serum and no ultraviolet showed a normal temperature in an average of 6.85 days and spent an average of 12.55 days in the hospital. Patients receiving serum plus ultraviolet had normal temperatures in 6.95 days and spent 11.12 days in the hospital. These two groups were made up of 20 in the first and 23 in the second. The remaining 18 were treated with ultraviolet alone, with a somewhat milder dose than Dr. Titus suggested, due to the severity of the reaction that occurred. These patients, however, had normal temperatures in 4.83 days and the average duration of their stay in the hospital was 9.36 days.

In a series of 29 cases reported from Presbyter Hospital, where erysipelas arose as a complication to some medical or surgical condition for which the patients were admitted, treatment was started almost imme-

diately. These patients showed normal temperatures in an average of 3.48 days, after receiving an average of 1.9 treatments; 18 of the 29 (mostly those with facial erysipelas) had only one treatment.

This work has shown that patients with erysipelas can be successfully handled in a hospital where the disease arises as a complication of some other process. Large doses of ultraviolet energy can bring complete eradication of the condition so promptly that it relieves the nursing staff and interns of the tedious procedures known as "special precautions." This means a saving in time and expense of treating the patients and also allows the physician or surgeon to keep the patient under constant and continued observation. The economic advantage of this form of treatment also can be appreciated by the administrative staff of a hospital.

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## NOTES AND ABSTRACTS

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### Spinal Manipulative Treatment in General Practice

POINTING out the value of spinal manipulative methods (as now mostly used by unqualified practitioners), in such conditions as dyspepsia, chronic cough, backache and insomnia, Dr. L. Capper-Johnson, in *Brit. J. Physical Med.*, Aug., 1932, remarks that he knows from experience how often the general practitioner's reputation suffers from apparent inability to clear up what the public would call simple complaints, which disappear rapidly under unorthodox treatment, and how excessively annoying it is to find a valued family connection thus severed. The mere assertion that such methods are not recognized in orthodox medical circles, in this day of scepticism makes the family doctor look foolish and out of date. Surely, the way to meet this new attitude is boldly to investigate the reasons for their success and try to add to our therapeutic equipment technic which, perhaps, has not yet been included in the syllabus of the medical schools.

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### Accidental Injuries in Office Practice\*

THE causes leading to accidents due to use of apparatus in the practice of physical therapy are: (1) improper technic or inattention on the part of the operator; (2) sensitiveness, lack of cooperation or negligence on the part of the patient; (3) faulty con-

struction or mechanical breakdown of the apparatus; or (4) a combination of two or more of these causes.

The injuries include electric shock, burns, tearing of the skin or rupture of internal organs by a blow from the apparatus. Take pains to see that the patient is comfortable during the entire examination or treatment. Pay immediate attention to every complaint, no matter how trivial, as it may prevent a damage suit. If necessary use a time clock or other device to cut off the electric current automatically on completion of a treatment. Never leave a patient alone during a treatment, and examine all treated parts carefully before letting the patient leave the office. Except for x-ray treatment, damage to the skin from galvanic, diathermic or other electric current would produce enough change in the tissues to be visible immediately. Blisters due to heat treatment by lamps may develop over night after the treatment, but are superficial and dry up in a day or two without becoming serious.

The patient's mental and physical equation is important. Instruct him to cooperate by reporting, at once, any unpleasant sensation or feeling. Sensitiveness to heat varies with different individuals and this must be taken into consideration, as well as the state of the body surface treated, whether there is a scar, etc. In certain kinds of technic, as in treating the wrist or ankle by the cuff and plate method, a feeling of tension, instead of burning or pain, serves as a subjective warning. When heeded, it may prevent skin injuries with severe sloughing. It may occur with a comparatively low meter reading.

\*J.A.M.A., Jan. 14, 1933.

Skin hypersensitiveness toward ultraviolet radiation, in persons of fair complexion, is well known. Certain substances, such as quinine or methylene blue, may render persons temporarily oversensitive to light treatment and should not be applied to the skin nor taken internally before or just after x-ray or ultraviolet treatment. The physician or his technician should know thoroughly all physical therapy apparatus used. It should be inspected regularly; otherwise, through friction or wear, something may go wrong and result in tragedy.

RICHARD KOVACS, M.D.

New York City.

Look for THE LEISURE HOUR among the advertising pages at the back.

### Diathermy in Obstinate Constipation

CASES of obstinate and long-standing constipation (not associated with specific lesions) were relieved in varying degrees by diathermy. Each patient had four diathermy treatments per week for four weeks. The treatment was administered by two large electrodes, one on the abdomen and one on the back. The amount of current varied from 1,500 to 2,500 milliamperes, continued for half an hour. The electric treatment was preceded by abdominal massage for twenty minutes and each patient received two colonic irrigations per week.—DR. VIOLET M. H. RENDALL, in *Lancet* (London), Aug. 6, 1932.

### Irradiation of the Thymus in Artificial Fractures

ARTIFICIAL fractures in rats showed a quicker repair after irradiation of the thymus than those of control animals.—DR. M. W. METTENLEITER, of New York City, in *Am. J. Surg.*, Aug. 1932.

### Vesicovaginal Fistulas Treated by Electrocoagulation

TWO cases of vesicovaginal fistula, following operations for removal of uterine fibroids, were successfully treated by electrocoagulation, applied from the bladder side through the cystoscope, and also from the vaginal side. In the literature the author finds only 2 other cases of vesicovaginal fistula reported as cured by electrocoagulation. One of the author's cases required 6 applications of the current.—DR. A. PETERSON, of Los Angeles, in *Am. J. Surg.*, Aug. 1932.

## BOOKS

### Troup: Infrared Treatment

THERAPEUTIC USES OF INFRA-RED RAYS. By W. Annandale Troup, M.C., M.B., Ch.B. (St. And.), Author of *Ultra-violet Rays in General Practice* and *The Titanium Alloy Arc: Its Uses in Therapeutics*. Honorary Consulting Electrotherapist to the Portman Hospital, Blandford, etc. With Foreword by Sir William Willcox, K.C.I.E., C.B., C.M.G., M.D., F.R.C.P. Second Edition. London: The Actinic Press, Limited, 17, Featherstone Buildings, W.O.1. 1933. Price 6/6, Inland Postage 6d.

The literature on ultraviolet therapy is extensive, but the infrared rays have largely been neglected by medical writers, so this little book should fill a need which has been felt especially by general practitioners employing physical measures in their practices. The author, himself a practitioner, knows just what information is needed.

After discussing the mechanics and physics of infrared radiations and the technic of their therapeutic application, in a simple and comprehensible way, the author proceeds to specific discussions of the various disease states in which these rays have been successfully employed, backing up his opinions with case reports.

In the introduction, Sir William Willcox stresses the importance of a reasonable amount of instruction in its use, before a doctor buys an infrared generator; and Troup emphasizes the importance of an intelligently applied technic.

Here is a brief, simple and direct clinical handbook which any practitioner can use with professional and financial profit.

### Actinotherapy

ACTINOTHERAPY TECHNIQUE: An Outline of Indications and Methods for the Use of Modern Light Therapy. With Foreword by Sir Henry Gauvain, M.D., M.Chir. (Camb.), F.R.C.S. (Eng.) 168 pages. Procurable through The Alpine Press, Inc., 80 Chestnut St., Newark, N. J. 1933. Price, \$1.00.

This compilation from "Nearly 1000 books and papers," dealing with the indications and technic for ultraviolet, luminous heat and infrared rays, is apparently published under the auspices of the English branch of the Hanovia Chemical and Mfg. Company. It, therefore, almost invariably refers to and emphasizes its own trade-named lamps or generators and specifically numbered applicators.

Unfortunately, actinotherapy has only very recently emerged from rank empiricism to a somewhat scientifically controlled conservatism; consequently, while references of over ten years ago, or even five, may be of considerable historic interest, they must, inevitably, lack commensurate practical or scientific value. It is at least fortunate that "This book is intended as a working tool for those qualified to practice actinotherapy," because the practitioner, with but a slight knowledge of the subject, should be cautioned against being disastrously misled by the remarkable enthusiasm evinced by some of its heterogeneous references.

J. E. G. W.

# STOMATOLOGY



OFFICIAL ORGAN OF THE  
AMERICAN SOCIETY OF STOMATOLOGISTS

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ASSOCIATE EDITOR

ALFRED J. ASGIS, ScB., M.A., D.D.S.

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## The Functions of the Dentist in Stomatology

**M**Y advocacy of closer and more effective cooperation between physicians and dentists is based on the contention that, if medicine has to deal with all varieties of departures of the human organism from health, and if dentistry has to deal with the particular departures of the teeth and the tissues about the teeth from conditions of health, it is obvious that dentistry must be looked upon as a special department of medicine. It is a fact that dentistry became divorced from medicine and, because of that, the teaching of the workers in medicine and dentistry was separated. As a consequence there has been too little understanding and cooperation between them in the past.

But the situation has changed and the dental profession has assumed the responsibilities in the realm of stomatology as one of the regular medical specialties. Does it not follow that it is the duty of the medical profession to cooperate in every way possible with the dental profession in the carrying out of those measures that dentists have found important for the prevention of dental caries, pyorrhea alveolaris, and other oral diseases? Is it not the duty of the teachers of physiology in our medical schools to go more fully than they now do into a discussion of the functions of mastication for the development of the jaws and of the teeth, of the functions of the muscles of the mouth (tongue, lips, cheeks, manible) for the cleansing of the mouth, and of the functions of the salivary secretion and of its different constit-

uents (mucus, mineral salts, ptyalin, and leukocytes)? Should not medical students be taught the influence of the physical consistency of foods upon mastication and upon the amount and quality of the salivary secretion, the influence of organic acids on the foods in stimulating the flow of alkaline saliva, and the influence of sugars and cooked starches in clogging crevices and in contributing to the carbohydrate stasis that will permit of the acid production that is responsible for the beginning of dental caries? Ought not internists and pediatricians to teach medical students these important factors of oral hygiene, educating them to the kinds of diet that are more suitable at different times of life, and to a technic of the toilet of the mouth, that is based upon sound physiologic principles? Ought not the teachers in our medical school to set the example before their students of studying most carefully the conditions in the mouth of *every patient* seen and of calling their dental colleagues to their aid when they need help with regard to the overcoming of oral infection, of traumatic occlusion or of impaired mastication from any cause, at the same time instructing the students in the principles of mouth hygiene?

If we could successfully put into practice the application of the principles of the hygiene of the mouth as they are now known to us, we could certainly go far toward lessening the amount of orthodontic work to be done, lessening the number of cavities to be

filled, lessening the number of teeth to be extracted, lessening the amount of prosthetic work that would have to be undertaken for functional masticatory purposes, as well as preventing the development of pyorrhea alveolaris and the ills that it entails. Moreover, the greater the amount of preventive work of this sort in stomatology, the smaller will be the number of metastatic infections and chronic intoxications for physicians to recognize and treat. And incidentally, it is a way to cut down medical and dental costs.

In working toward these goals, the members of the medical and dental professions must share their knowledge with one another and must work together harmoniously for the best interests of the public that they

serve. The creation of a Section on Stomatology in the A. M. A., proposed this year, where dentists are to present their subject before organized medicine, is a most commendable idea, sponsored by the American Society of Stomatologists.

Another practical means to further medico-dental cooperation is for dentists to support liberally a Department of Stomatology, such as is being conducted in this medical journal. The medical profession is now, as never before, prepared to lend a helping hand to ease the functions of the dentist in practical stomatology.

LEWELLYS F. BARKER, M.D., LL.D., F.A.C.P.

Emeritus Professor of Medicine,  
Johns Hopkins University School of Medicine.

## Medico-Dental Cooperation and Mouth Function

By Harry E. Denen, D.D.S., Chicago

THE importance of close cooperation between the physician and the dentist in the treatment of conditions relating to the oral tissues has been stressed many times by various writers on medico-dental subjects. Such a relationship has always proved mutually beneficial and has resulted in an improved type of service. The physician, however, in his recommendations to the patient and in his consultations with his dental colleagues has, in the past, overlooked several important aspects of this situation. It is the intention of this paper to focus attention on these omissions, not by decrying the current medical procedure, but by pointing out some of the unintentional oversights physicians are making and to suggest what seems to me a more rational procedure in the management of those cases where cooperation of the dentist is indicated.

Some years ago, the hue and cry of "foci of infection" was raised in the land. After the extraction of apparently infected teeth, various systemic involvements cleared up. This important discovery was followed by an era of ruthless and wanton extraction of teeth for every systemic involvement, from the ordinary stomach ache to dandruff. Thousands upon thousands of teeth were extracted, in the hope that the patients would respond to the physician's treatment and recover. Some of them did and some of them did not. Many a patient who had been advised to have his teeth extracted in the hope that a persistent arthritis or neuritis would clear up, returned

from the dentist without his teeth, but with his condition unchanged or perhaps aggravated. His resentment at the physician for having wantonly sacrificed his teeth was matched only by the chagrin and disappointment of the latter at the failure of his treatment.

Seeking relief from this embarrassing situation, I solicited the earnest cooperation of my medical associate; and for many years we observed closely the relation between mouth hygiene and the treatment of disease. For one thing we found that, without absolute cooperation with the dentist, the physician was not only hampering himself, but he was obstructing the patient's chance for recovery. We found that the nearest the physician came to instructing the patient about dental attention was the necessity for the extraction of teeth that were infected. *This is not the important dental story to be told. The most important is the instruction to the patient for reconstructive work to be done in the mouth where the teeth have been extracted.* Except where the patient is made edentulous, the physician rarely insists that he have his mouth rebuilt and repaired. The patient is left to decide whether he wants to replace those lost teeth or not.

The patient comes to the physician because he is ill. He has absolute confidence in the ability of his doctor to make him well again. How can this be done if one disrupts the patient's masticatory apparatus and then does not insist that this condition be taken care

of, so as to be able to insure a successful recovery? This unintentional neglect is, to my mind, a greater error than not advising the extraction of the infected teeth.

Without good mastication there can be no good digestion; without good digestion there can be no good assimilation; without good assimilation there can be no good nutrition; without good nutrition there can be no good health; hence the paramount importance of a complete complement of good teeth.

#### Results of Lost Teeth

A full complement of teeth, in normal relation, is nature's own tooth brush. If this is broken up by the extraction of teeth, the teeth and contiguous tissues in the opposing arch do not receive their proper stimulation and exercise by the mastication and excursions of foods over these tissues. Not receiving the proper massaging and stimulation, glutinous and calcareous accumulations will be deposited on and around the teeth of the opposing arch and, together with improper stimulation, will cause stagnation of the soft tissues. A proper stimulation of these tissues will induce a good blood supply to them, resulting in health and tone.

Partially edentulous mouths will suffer the most damage if neglected. Shifting and exfoliation of teeth go hand in hand. For example, if spaces are created in the lower jaw by the extraction of teeth, exfoliation of the upper teeth opposing these spaces will occur. Teeth adjacent to the spaces will shift. A general change in the biting relation of the upper and lower jaws, with the appearance of occlusal traumatism, will result. The shifting causes unnatural spacing, which leads to injury to the delicate septum of tissue in the interproximal spaces, causing a breaking down of this tissue with subsequent pathologic changes, such as pericementitis or periodontitis with its irreparable bone destruction.

Moreover, the changed occlusion causes trauma to the underlying structures, with devastating end results. Teeth may tip into the spaces so badly that, when restorations are wanted, it will be impossible to construct anything that will be of service. In the edentulous mouth, bone and tissue changes take place; condylar movements are exaggerated to the extent that hearing may be impaired; and muscle changes will seriously endanger the successful wearing of dentures. Thus one may readily see how important it is to build up the mouth at once, so as to give the patient an efficient masticatory apparatus.

#### The Dental Consultant

Dental research and education have made it possible for the forward-looking dentist of today to rebuild and rehabilitate these mouths with prosthetic appliances, with regard to the biologic factors involved. The mechanical abuses of the past have been reduced to a

minimum. Today the dentist is constructing his bridge-work, whether of the fixed or removable type; his platerwork, whether full or partial, with a careful regard for the physiologic as well as the physical and mechanical factors involved.

The physician should be just as interested in the welfare of the patient he sends to a dentist as he is concerned in his choice of a medical consultant. He should confer with the dentist at all times, so that the patient is under constant supervision while he is under the dentist's care. Such diseases as tuberculosis, syphilis, diabetes, and the various blood dyscrasias require close cooperation.

During the period of pregnancy, every patient should have the benefit of dental cooperation. Rapid decay of the teeth in pregnant women during gestation, and the dietetic and metabolic problems having to do with the proper development of the teeth of the fetus are important factors to be considered. Striking illustrations of the great benefits which accrue from close cooperation are seen in reconstructive surgery, particularly of the head, and in orthopedics, pediatrics, gastroenterology and metabolic disorders of all sorts.

Physicians should know more of what the dentist is doing for their patients. Without this understanding the work may be hampered and the patient suffers. The physician should be aware of the possibilities which may arise and be able to discuss them intelligently with the dentist.

During the years that my physician associate and I have been carrying on our investigations, we have yet to find a patient suffering from any of the major diseases, such as tuberculosis, cancer, goiter, or gastrointestinal disturbances, whose masticatory apparatus was in order. This observation made us wonder if this oral deficiency was not, in some measure, a contributory factor to the onset of these diseases.

Over a period of five years we have watched a number of patients suffering from gastric ulcer. In over 100 cases the following procedure was instituted: Where surgery was not considered imperative, the first procedure was to impress the patient with the necessity of placing his mouth in order. This restorative treatment was instituted immediately; then medical and dietary treatment was prescribed. The results of this variation in the treatment were almost miraculous. Of the 100 cases so treated, 85 percent were cured without recurrence. Of the remaining 15 percent we lost track of over half. The remaining few that returned with recurrent ulcers showed, in every case, evidence of gross dental neglect. These figures lead one to believe that prompt restoration of dental function, under the physician's supervision, will make many more of these cases amenable to treatment.

My physician associate now makes it routine practice in his office to see that his patients are told the dental story. He is happier in his work because he knows he is giving his patients every advantage. He is caring for his pregnancy cases with less difficulty; acid erosion of the teeth is prevented; an efficient masticatory mechanism insures that food will be chewed thoroughly and in comfort; the fetus receives the maximum of nutrition, and one important cause of malnutrition and rickets in the child is thereby eliminated. His surgical cases are helped by instituting immediate dental attention, unless an emergency presents itself. He also instructs them as to their oral care so that, during the period of convalescence, they will have the benefit of a full complement of teeth.

In any profession, proficiency is achieved only through the interchange of ideas of a constructive nature. I would suggest to any physician that he examine the mouths of the

next dozen patients that come to his office. What he sees may surprise him. The more the dentist knows about medical principles and medical practice, the better will he be able to serve his patients. By a parallel reasoning, the more the physician knows about dentistry, the better will he be enabled to recognize obscure conditions due to faulty dental function.

In our present stage of the practice of these two branches of the healing art, the dentist knows too little about medicine and the physician is all too unfamiliar with dental problems. To eliminate the conditions resulting from this situation, it is the duty of each of these groups of practitioners to seek counsel from the other. Alone, each may fail to render the fullest service; together their combined efforts will bring nearer the goal of successful treatment, thereby aiding in the conservation of the health of the public.

4621 Broadway.

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## NOTES AND ABSTRACTS

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### Dental Caries\*

WHETHER we regard dental enamel as a vital or a dead tissue in its reaction to dental caries, seems to be a matter of definition. It is, perhaps, a question of whether the term "vitality" should be applied to a non-cellular tissue (enamel), in which, apparently, metabolic activity occurs through the cellular processes of an enclosed organ (pulp).

The entire question revolves around the following:

- 1.—Are newly erupted teeth less highly calcified than mature ones?
- 2.—Do the mineral salts, which effect the posteruptive calcification of the teeth, originate from the blood in the dental pulp?
- 3.—Can fully erupted teeth be harmed by systemic disturbances by way of the pulp? And can this explain the varying activity of dental caries in different individuals and at different ages?

If we can answer these questions in the affirmative, and I think some of us can, we must regard the enamel as a tissue closely dependent for its welfare on its physiologic connection with the body, particularly during youth. Thus dental caries will finally prove to be caused mainly by systemic disturbances.

CHARLES F. BODECKER, D.D.S.

New York City.

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\**Journal A.D.A.*, May, 1933.

### Chemical and Electrolytic Lesions of the Mouth Caused by Artificial Dentures

EXAMINATION of the mouths of 45 adults wearing full plate dentures revealed that 45 percent had either stomatitis or glossitis. Many of these were due to neglected oral hygiene or to imperfect adaptation of the plates to the alveolar process. In several cases, however, after all ordinary etiologic factors had been eliminated, it was concluded that the poisonous constituents of the dental plates were the offending agents.—DR. E. S. LAIN, in *Arch. Dermat. & Syph.*, Jan., 1932.

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### Dental Problems and Psychoanalysis

IT has been claimed that 98 percent of cases of pyorrhea are associated with gnashing of the teeth at night. This gnashing is often connected with some emotional problem of the patient, and the gnashing is mostly a subconscious phenomenon or habit.

Some cases are reported in which the emotional factor underlying habitual grinding of the teeth, with resulting traumatism, was traced by psychoanalysis and the mental condition treated by suggestion, with resulting symptomatic improvement.—DR. B. S. FROHMAN, of San Francisco, in *Dental Cosmos*, Nov., 1931.

# A LIVING FOR THE DOCTOR

## Treatment of Cataract by the General Practitioner

THE prevailing consensus regarding cataract is that, when once started, there is nothing to do except wait until it becomes ripe, and then operate upon it. For this reason, most practitioners have no interest in this condition except to recognize it, obtain the consultation of an ophthalmologist, and then watch it until the time for operation arrives. Of course there is very little financial reward for such services as these.

The fact remains, however, that here and there throughout the country there are men who are treating cataract non-surgically, with a degree of success which is highly gratifying to the patients and remunerative to those who are doing this work. Calling these men quacks does not alter the facts as stated, and there is no reason why a large number of general practitioners should not add materially to their incomes by handling these cases at home.

We are now fully acquainted with the idea that good results in the treatment of tuberculosis, cancer, psychic disorders and, in fact, many other diseases, depend upon the early recognition of the condition to be treated and prompt attention to it. Cataract is one of those maladies which, if it is to respond satisfactorily to medical management, must be recognized and treated *early*.

One need have no hesitation in trying the available non-surgical remedies, even if one holds the prevailing opinion regarding cataract, because, if the lesions are ripe, they will do little or no good in any case and the time for operation is at hand; while if they are not ripe, a period of waiting lies before the patient, during which he suffers the distress of observing the constant diminution in his vision. The measures to be suggested are reported as being entirely harmless and, if they do no good (as sometimes happens), surgical relief can be attempted when the proper time comes.

Two medical methods have shown a degree of success which seems to warrant their trial in any case of cataract where the patient retains a useful degree of vision, in the hope that this may be preserved, if not improved, and in practically all cases of monocular cataract, where surgery is rarely considered advisable.

The first of these remedies is a biologic product, made from the crystalline lenses of animals and known as Lens Antigen or Lens Extract, and is given subcutaneously, in courses of from 50 to 75 injections.\* Reports show that about 90 percent of immature cataracts can be arrested by this method and that in about 70 percent the vision is improved—sometimes restored to normal.

The other method consists of the daily local application, over a long period of time, of a preparation made from the juice of a West Indian plant, *Cineraria maritima*.†

In addition to the use of either of these specific remedies, it is a good plan to institute certain general treatment. Potassium iodide, 10 to 15 drops of a saturated solution in a full glass of water at meal time (or, if that disagrees, a teaspoonful of syrup of hydriodic acid in a little water half an hour before meals), is often helpful. A practically salt-free diet may also be of assistance. Feeble patients should be given general tonic treatment. The eyes may be used moderately, within the range of comfort.

One must be very careful, in undertaking a treatment like this, not to be over-enthusiastic in recommending it to a patient. No definite

\*See articles by Dr. A. E. Davis, in *Am. Med.*, June, 1926, and *CLIN. MED. & SURG.*, Jan., 1932, p. 30. The extract is marketed by the H. K. Mulford Co.

†Succus *Cineraria Maritima* Comp.; Walker Pharmaceutical Co.

promises as to results should be made, but merely the statement that arrest or improvement has followed its use in many cases, and if they do not appear, nothing has been lost, as the operation (if decided upon) can still be performed at the proper time.

The progress of these cases is slow and the treatment extends over considerable periods of time, so the wise physician who undertakes to apply these methods will have a frank talk with the patient before he begins, decide upon a reasonable fee for the entire service, and collect it complete, *in advance*. This is the only way to protect the patient against his natural inclination to discontinue the treatment when he sees no perceptible improvement after several days or weeks.

It would appear that this is a sound and ethical way in which many physicians can increase their incomes and professional reputations.

G. B. L.

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### Little Things

There is a strange perversion of the human mind which is almost, if not altogether universal. It is the underestimation of the value of little things.

But who can say what is great or what is little? If the truth were recognized, there is really nothing great; but everything which men term "great" is composed of a series of little things or acts, the sum total of which constitutes an accomplishment which ranks among the so-called great things of life.

It was a long sequence of little steps, taken in a certain direction, which culminated in the great act of the signing of the Emancipation Proclamation. During a tedious series of years Lincoln strove against the monstrous evil of slavery, and when the time was ripe the little act of writing his signature wrought the great thing, and slavery died in this country.

When the half-cent was abolished in the latter half of the nineteenth century, there began a series of little pilferings of half-pennies from the poorest class of our population, which has amounted at the present time to a vast accumulation of millions of dollars, taken by the retail dealers of the country from those least able to pay. Incidentally, we would strongly advocate the re-issuing of the half-cent by the Government, in order to abolish one petty form of legalized graft.

"Only a few cents," one exclaims; but when the lifetime is spent the total is a sum not to be despised. Only a few moments wasted now and then in idleness or useless employment; but the total of days or years lost from one's life is appalling.

Each one should open his eyes to the value of little things. This is not penuriousness nor is it Scotch frugality. It is the recognition of a great fact, the admission of the truth of the Scottish maxim, "*mony a mickle makes a muckle*."

W. A. NEWMAN DORLAND, M.D.  
Chicago, Ill.

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## NOTES AND ABSTRACTS

### The Fable of Seven Doctors and Seven Opinions

THE PATIENT sat in a corner, forlorn and forgotten, after three days of punching, probing, "scoping" and hammering.

The diagnosis, a mixed breed, half lion and half goat, sickly looking, walked awkwardly across the reception room, its soft padded feet and hoofs sounding strangely on the hard floor, and passed into one of the private offices for inspection.

The internist took the lead and said that in his opinion it was cardiovascular disease with impaired function and rising blood pressure, hence the poor nutrition. The toxemia would

account for the nervousness. The diagnosis seemed restless and shifted its position.

The rectal and colon specialist, standing in the rear, said he didn't think so; from his viewpoint it was just as plain as could be that all the trouble was near the fundament and in the colon, and to correct these errors would result in vast benefit.

The stomach man concurred in this opinion, but didn't at all agree with the internist. There was the difference, however, that the stomach itself was far more involved than the rectum or colon, or even the ileum and jejunum. By all means the rest cure and lavage was the important thing. He would not go too much on what the other saw.

Here the dentist broke in and stated that it was very evident to his mind that the whole condition was dependent upon continuous infection from the mouth, laying great stress upon the streptococcus hemolyticus. This would easily account for the impaired function, the increased blood pressure and all the other symptoms.

The diagnosis looked around at the doctors suspiciously, tried to roar, but bleated, turned his tail a little higher and appeared ready to butt or strike in defiance of the various opinions.

He opened his mouth very wide and this led the eye, ear, nose and throat specialist to say that he thought tonsillectomy was absolutely necessary, adding that the condition of the throat could easily cause all the trouble. Of course a spur on the right should be clipped off, and glasses fitted.

The G. U. specialist disagreed with all of them, kindly but positively, and said there was too much redness about the trigone and the ureteral orifices, and the pelvis of the left kidney held twenty minims more of fluid than it should. The cystoscope was paramount, and a few silver irrigations would set things right.

The dermatologist, rather peeved at the neglect of his branch, remarked that they had overlooked the most wonderful organ of the body, the skin and its related tissues, the hair and nails. "Just feel the texture of the skin and see how dry and dead the hair is, and how brittle and marked the nails. It is plainly a case of endocrine disturbance."

The surgeon, who had patiently waited, while he whetted his knife on his shoe, gave his opinion emphatically that both the appendix and gallbladder were infected and inflamed, and he stood ready to operate immediately.

The diagnosis turned around, looked at the surgeon, roared and bleated at the same time, lifted his tail still higher and trotted away rapidly, looking anxiously from side to side.

One of the "group" went out and gave the despairing patient a mongrel prescription, told him to take that, not eat too much meat and report again in a month.

The sufferer, seeing the diagnosis was in trouble, hurried out and, as he passed the door, asked the attendant if she knew where there was a good Chiropractor.

J. S. LANKFORD, M.D.

San Antonio, Tex.

I would rather deprive myself of something I needed very badly than to give up CLINICAL MEDICINE AND SURGERY. That's what I am doing and thanks a lot.—H.A.C., M.D., Ohio.

## Caring for the Victims of Automobile Accidents

IN THE decade, 1921 to 1930, 230,353 persons were killed and many millions injured by automobile accidents. In a fair percentage of the cases, the amounts received from insurance were insufficient to cover the cost of medical care and other expenses.

Much of the cost of medical care of persons injured in automobile accidents falls on the hospitals. In 1930, the Ohio Hospital Association found that, of \$810,489.14, in hospital bills for services rendered to automobile injury patients, \$406,761.24, or approximately 50 percent, was considered uncollectable. The Association favors compulsory liability insurance on the part of automobile owners. One provision of its proposed law covers the treatment and care of injured persons; it provides that the costs of medical or surgical care, hospitalization, nursing service and the like, shall be borne by the automobile owner responsible for the accident. If feasible, such a plan would go far toward relieving physicians and hospitals of a burden which society has no right to demand that they bear.—Editorial in *J.A.M.A.*, Oct. 1, 1932.

## Paying for Medical Care\*

MEDICAL care today costs more than it did in 1890, but it is worth much more. However, the increased complexity of medical practice indicates a need for reformation as to the *quality* of medical care. How much laboratory diagnosis or how much hospital care is actually necessary in the vast majority of cases?

The report of the Commission on Medical Education indicates that from 85 to 90 percent of all of the conditions for which patients consult physicians can be safely and competently handled by a good general practitioner, with the amount of equipment that he can carry in a hand-bag. The remaining 10 to 15 percent of serious conditions may require hospitalization and specialistic attention.

The question then arises as to how the average man will be able to pay for such service. American people spend \$10,000,000,000 annually on motor cars and accessories; \$4,000,000,000 on tobacco; \$2,000,000,000 on cosmetics. They save annually \$650,000,000 in Christmas savings funds. They might, therefore, well be taught to save in anticipation of sickness, as they have learned to save for many of the non-essentials of life. Whether or not this saving is accomplished in groups or individually is not, however, the signifi-

\*Abstract of a talk before the North Side Branch, Chicago Medical Society, in January, 1933.

cant question. The significant question is the maintenance, under any form of saving, of free choice of a physician and free choice of a hospital. Moreover, there must be personal responsibility of the physician to the patient and personal responsibility of the patient to the physician in order to maintain what all have agreed is essential; namely, the intimate personal relationship between physician and patient, which has for centuries constituted the basis of good medical care.

Little objection would have been raised to the publication of the majority and minority reports of the Committee on the Costs of Medical Care, had there not been indications, through publicity and propaganda, of an intention to "put over" the majority report promptly, and thus to bring about a revolution instead of a gradual evolution in the nature of medical practice. There is no objection to any experiment in the nature of medical practice, provided that it conforms to the rules of the game which have been observed for thousands of years. Those rules specify that the safety of the patient depends on avoidance of competitive underbidding for medical practice, avoidance of direct or indirect solicitation of patients and all of the other principles of medical ethics which have been set up, not for the protection of the physician, but for the protection of the sick.

The Committee on the Costs of Medical Care was largely a self-selected group; its directors had indicated, five years ago, the nature of the conclusions which would be reached; and the available evidence indicates that hardly one person in the entire committee has changed his opinion during the five years of investigation and study. The minority report was correct in its criticism of the investigation. The institutions doing contract and group practice, cited in the report, were in the nature of a special selection of cases, supporting the conclusions already drawn.

MORRIS FISHBEIN, M.D.

Chicago, Ill.

### Look Near Home

**I**F the failure of Law is chargeable to its lawyers; if the collapse of Religion is traceable to its ministers, then the weakening of Medicine is equally blameable on its doctors! Don't blame the public! Don't blame Medicine itself! Look for the cause in the *short-sightedness of its leaders and the shortcomings of its followers.*—DR. LOUIS R. EFFLER, president of the Toledo Academy of Medicine, in *Med. Econ.*, July, 1933.

### Collection Psychology\*

(Eight Rules for Getting Your Money)

- 1.—Make it clear that you *expect* to be paid for your services.
- 2.—Indicate that you expect *prompt* payment.
- 3.—Be careful of your casual conversation with patients. (Don't say, "Times are terrible. Nobody pays": Say, "There are a few dead-beats, but most of my patients are responsible and honest people.")
- 4.—*Itemize* all bills.
- 5.—*Credit investigation* is far more effective than *collection effort*.
- 6.—If statements the *first* of the month do not bring results, try sending them on the *fifteenth*.
- 7.—Obtain *repeated* credit reports, from time to time, and act on them with sympathy and tact.
- 8.—Credit reports should show, not merely financial worth, but *how the man pays his doctor's bills*.

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Look for THE LEISURE HOUR among the advertising pages at the back.

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### Medical Sociology in the Medical School Curriculum

**I**N ORDER to improve the quality of its graduates by adding to their training, as medical technicians, a medical culture aimed to impress the students with an understanding of medicine as an art and give to the doctor a broad social conception of his relation to humanity, the Long Island College of Medicine has established a required course of medical history, with this object in view.

The course is to begin in 1932-1933. Medical history is used simply as a scaffolding on which to erect a structure of the social relations of medicine. On this are built medical philosophy, medical ethics and medical economics, all parts of the larger facade of medical sociology. The medical history of all time is interpreted in its relation to the problems of present-day life and to the facts of medical practice. What has gone before in the development of the science of medicine illuminates the philosophic, ethical, and economic aspects of the medicine of today. This gives the students a broader understanding of their art.—DR. J. P. WARRASSE, of Woods Hole, Mass., in *J.A.M.A.*, Aug. 27, 1932.

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\**Med. Economics*, Aug., 1933.

# THE SEMINAR

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.)

Discussions should reach this office not later than the 1st of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.)

## Problem No. 9 (Urologic)

*Presented by Dr. Winfield S. Pugh, New York City.*

(See CLIN. MED. & SURG., Sept., 1933, p. 481)

**R**ECAPITULATION: A Negro porter, 57 years old, complained of frequency of urination and attacks of weakness, which latter began 4 months before he was seen, occurred about once a month and lasted only a few minutes. He had gonorrhea at 17 years; and a prostatectomy, at 55 years, gave him much relief. When seen, the weak spells were occurring almost daily and there was also diurnal frequency of urination. Otherwise he felt well and did not appear ill.

*Physical Examination* showed nothing of moment, except a mass, extending three finger-breadths below the ribs in the mid-axillary line, in the right renal area, along with many pus cells and a few granular casts in the urine.

When cystoscopy was attempted, the patient became (apparently) dangerously weak; but it was finally done, disclosing a small, inflammatory growth at the neck of the bladder. Ureteral catheters passed to the pelvis of both kidneys, and the function of both seemed to be reasonably good, with no growth on urine cultures.

*Requirement:* Suggest diagnosis and treatment, based on the facts presented.

**Discussion by Dr. E. C. Junger, Soldier, Ia.**

**T**HIS problem seems to point to considerable destruction of kidney substance on the right side, including the adrenal gland. Probably chronic pyelitis is the cause.

The weak spells suffered by this patient are probably due to pyemia or toxemia, which has upset his nerve equilibrium.

The prostatectomy, two years ago, gave him better bladder drainage and a gain in strength followed. The cause needs to be removed, which means the kidney. This should be easy, as his left kidney appears to be

normal and can compensate very well when the infected one is removed.

The old neisserian infection no doubt left a mental impression that partly explains the psychic upset when any attempt is made to examine the genito-urinary tract.

**Discussion by Myron T. McCormack, Junior Intern, Misericordia Hospital, Milwaukee, Wis.**

**M**Y diagnosis in this case would be:

- 1.—Adenoma in the chromaffin cells of the right adrenal.
- 2.—Chronic cystitis with thickening.
- 3.—Transitory and paroxysmal cerebral anemia.
- 4.—Above No. 3 due to No. 1 and producing:
- 5.—Hyperirritability of the central nervous system and neurosis.

I shall attempt to state my line of reasoning in this case for consideration.

Adrenalin, which may be overproduced by a chromaffinadenoma, stimulates the sympathetic nervous system. This would explain the constant nervous tension and desire for action. It also, by causing a sudden rise in blood pressure by the contraction of the arterioles, slows the pulse greatly—even to almost apparent loss. The heart in this case suffers passive dilatation. The resulting cerebral anemia causes the transitory asthenoid condition and collapse.

The urinary syndrome I believe to be a combination of chronic cystitis and a urinary neurosis, which latter may be partially caused by the nervous irritability due to adrenalin. This seems logical, especially as there is no nocturia and the condition exists only during the waking, nervous hours.

### Suggested Treatment

- 1.—Any good, accepted cystitis treatment. (Metaphen seems to be especially helpful.)
- 2.—Sedation with bromides or barbiturates or both, to attempt control of possible nervous condition.
- 3.—If, after a reasonable period of trial, sedation does not stop the attacks and halt the nervous fear to some extent, I would,

considering especially the mass over the right adrenal area, be convinced that the overproduction was not due to simple nervous or neurotic overstimulation of the splanchnic secretory nerves to the adrenal, but that it was due to a neoplasm of the gland, with constant secretion. The lack of a constant hypertension, I believe, could be laid to cardiac inability to maintain it, due to some degree of myocardial degeneration, an allergy to the neoplastic adrenalin, or a toxic condition from focal infection in and about the bladder.

4.—Treatment, if condition was as in Par.

3, would then be:

A.—Intensive x-ray therapy to the right adrenal; or

B.—Laparotomy to confirm the diagnosis and surgically remove the neoplasm, if found—to leave behind, if possible, any normal tissue. The remaining gland should meet all requirements.

C.—After confirmation of the diagnosis, section of the autonomic splanchnic secretory nerve supply to the right adrenal.

#### Discussion by J. A. Dungan, Greeley, Colo.

NOTHING is said relative to a Wassermann test having been made on this Negro, unless that is inferred in the reference to "nothing else of note having been developed by other departmental examinations."

I suspect this man may have myocarditis, possibly syphilitic. He may also have some post-war psychoses, which have a tendency to prostrate the patient whenever he is liable to be subjected to the possible pain of introduction of sounds or other urologic instruments used in examination. He might equally well be prostrated to the same extent by the near approach of any other ordeal which he might fear would be painful.

The great diurnal urinary activity I believe to be the result of the inflammatory mass diagnosed as existing near the neck of the bladder, which mass should be removed surgically or by surgical fulguration.

Rest in bed, with daily treatments with high-frequency electricity and thorough massage, would seem to be indicated, together with the specific treatment of whatever special infection might be evident.

It is hardly probable that this man is in the first stages of Addison's disease.

#### Solution by Dr. Pugh

ONE week later the patient died and the following autopsy record is of interest:

**Anatomic diagnosis:** Bilateral carcinoma of the adrenals, with metastasis to regional lymph nodes, diaphragm, inferior vena cava, lungs and bronchial lymph glands.

The adrenals and kidneys were removed en masse. The right adrenal was tremendously enlarged, being about five times the normal size; but it had preserved its confor-

mation. On section it consisted of a very large, firm mass, golden in color and nodular. The lymph nodes of the neighborhood were all enlarged and contained tumor masses. The right kidney was somewhat enlarged, normal in shape and had a bifid pelvis. The left kidney and adrenal revealed a condition similar to that on the right.

### Problem No. 11 (Medical)

Presented by Dr. E. A. Johnson, Hugo, Okla.

MISS M. McD., age 19, was born in a rural district, lived there all her life and has had only the diseases of childhood.

In February, 1933, while attending school, she noticed that she did not have as much interest in her studies as she previously had. She felt weak, did not have any energy, wanted to sleep and rest. She was taking vocal lessons at the same time and she noticed that her voice was failing and that her throat would hurt when she tried to sing. She also noticed that she was losing weight, did not have any appetite and that she was gradually growing weaker.

At this time she came under my observation and on examination I found that she had considerable irritation of the vocal cords and that her tonsils were badly inflamed; hemoglobin 40 percent; blood pressure, 96 systolic, 60 diastolic; red blood count, 3,000,000; white cell count, 10,000; differential count, not made.

During this time her temperature ranged from 99.6° to 100.6° F. She did not cough, but had a desire to clear her throat frequently. I sent her to a throat specialist for examination, and he advised removing the tonsils, which was done some time later.

She was put on reconstructant tonics and advised to stay in bed. She stayed in bed for some three months but did not improve, except that she gained in weight. The fever was constant. At this time I gave her the tuberculin test, which was negative. I gave this test three times and each time it was negative.

For the past three months she has been having fever only when she exercises a little. If she walks as much as a few hundred yards she will show a slight fever. If she rides in an automobile five or six miles she will have a temperature of 100° F. or more. The slightest exertion will cause a rise of temperature.

Occasionally she complains of some pain in the back. The urinalysis is negative. She says, "Three or four days before my periods come, when I lie down, relax and close my eyes, I feel like I am sinking."

I have not been able to find anything in the lungs suggestive of tuberculosis.

**Requirement:** Suggest diagnosis (with reasons) and treatment.

# CLINICAL NOTES and ABSTRACTS

## Parathormone in Gastric Ulcer Hemorrhage

(Case Reports)

THE following is an account, in brief, of the use of the parathyroid hormone (Parathormone) and its effect in increasing the calcium content of the blood and permitting a better clotting power, as well as cessation of active bleeding, in several cases of duodenal, as well as frank gastric ulcers.

*Case 1.*—A man, aged 30, butcher, married, white, gave history of gastric uneasiness in the pit of his stomach, as well as in the region up to the umbilicus, following the evening meal or several hours afterwards, but no actual burning or vomiting spells. This uneasiness increased his nervousness at night and, as a consequence, he drank synthetic gin and some quantity of beer, claiming he was thus relieved and could sleep better. The week before I was called he drank more heavily than usual, was becoming paler daily and had tarry stools.

On May 5 he vomited, after his evening meal, a considerable amount of red material, which he attributed to the eating of beets the day previous. That night he vomited more material, which was definitely bloody, and he fainted in the bathroom. After regaining consciousness he became dizzy and had palpitation and increased nervousness.

I was called the following morning. Just before my arrival he vomited again. The material, upon examination, was full of clots and bright-red blood. There was no other complaint aside from those listed. A diagnosis of gastric ulcer hemorrhage was made, the patient told to remain in bed absolutely, an ice bag applied to the stomach region and  $\frac{1}{4}$  gr. (16 mgm.) of morphine, with atropine, given. Later in the afternoon, 1 cc. of parathormone was given intramuscularly, and another  $\frac{1}{4}$  gr. of morphine, with atropine. An enema that evening revealed a tarry material, indicating earlier hemorrhages from ulcer which had gone through intestinal digestion.

The following morning, 1 cc. of parathormone was given intramuscularly and ice bags were continued, as well as ice-cold milk and cream mixture (equal parts) as desired, in small sips.

There were no more hemorrhages or tendencies to vomiting from then on and subsequent bowel movements were normal in color.

All blood tests on fecal matter remained negative from the second day on. The patient has since then been given intravenous injections of iron, arsenic and copper, 5 cc. every other day, and given Metaphen, 1:500, a teaspoonful  $\frac{1}{2}$  hour before meals, in water, and a regulated diet. He has recovered completely, is symptom-free and is gaining in weight.

*Case 2.*—A man, aged 42, white, married, street-car motorman, has had gastric ulcer for the past ten years, is rather negligent about his diet when his symptoms subside and he gains in weight, and goes on occasional alcoholic sprees for several weeks, because he claims he becomes tired of a restricted diet. After these he usually has a recurrent hemorrhage, which brings him to his senses again for a couple of months.

He had a hemorrhage recently, with a fainting spell, and later vomited a quantity of blood clots and bright-red blood. The stools, for a few days, were composed of a stinking, tarry mass.

The usual morphine injection was given, ice to the stomach region and rest in bed. Two injections of parathormone, 1 cc., morning and evening, were given intramuscularly for three days, resulting in normal stools after the second day. No microscopic or chemical evidences of blood in stool were noticed after second day of treatment.

Two other cases of hemorrhage were treated similarly in the past few weeks, with similar results.

Because of the results noted, parathormone seems to offer us an excellent means of treatment of gastric ulcer hemorrhage, when such rapid cessation of bleeding can be obtained.

T. H. MADAY, M.D.

Chicago, Ill.

### The Induction of Labor\*

IN A SERIES of 406 cases in private practice, the castor oil and pituitary extract method of induction of labor was successful in 96.8 percent of the cases. This method is as follows: In the hospital, two ounces of castor oil

\*Northwest Med., Feb., 1933.

are given early in the morning; exactly two hours later a hot soapsuds enema is given. In some cases labor will commence at this stage. In the majority of cases, however, as the enema is being expelled, 3 minims of pituitary extract are given hypodermically; this is repeated every half-hour until labor commences or until fifteen injections have been given without effect.

Induction was most successful when the head was engaged and the cervix effaced.

In the last 206 inductions, quinine was not used (as formerly), and the results were apparently not affected by its omission.

In this series of 406 cases there appeared no basis for the fear some hold that the use of pituitary extract in the induction of labor causes separation of the placenta.

In this number of cases, which on close analysis seem to include most of those that promise trouble (the toxemias, eclampsias, large babies, contracted pelvic outlets, etc.), the maternal morbidity and the fetal mortality were surprisingly low; in fact it appears to us that in this series the induction saved much maternal morbidity and several fetal lives.

ALBERT MATHIEU, M.D., F.A.C.S.

Portland, Ore.

### Vaccine Prevention of Whooping Cough\*

IN 1928 I began a study on immunizing 294 selected young children against whooping cough. Their ages ranged from nine months to several years and their past medical histories were familiar to me from their infancy. The vaccine was especially prepared by my collaborator from five to seven strongly hemolytic strains of the Bordet-Gengou bacillus.

The children were treated in three groups and each child was given between 7 and 8 cc. of vaccine (70 to 80 billion bacilli). The 109 children in Group A were given about 1 cc. hypodermically in alternate arms each week, until eight injections were given. The 97 children in Group B were given 1 cc. simultaneously in each arm for four successive weeks. The 88 children in Group C were given 1, 1.5 and 1.5 cc., respectively, in each arm each week for three weeks. In neither group could the local or systemic reaction be compared in severity with the mildest smallpox vaccination reaction. White blood counts made in Groups A and B on the first and last injection days showed some increase (chiefly in small lymphocytes) in over 85 percent of cases. The vaccine seems to influence the blood picture in the same way as does whooping cough.

\*J.A.M.A., Jan. 28, 1933.

General questionnaire results showed that 82 of the Group A children, 29 of the Group B children and 16 of the Group C children, were intimately exposed to whooping cough, with only one developing a questionable cough. In eight cases carefully studied, in which there was continuous exposure, one child developed symptoms similar to whooping cough, but did not have paroxysms. Her exposure began less than two months after her injections were completed. There should be at least three months' interval to consider it a fair test of immunity.

I feel that we now have a definite means of preventing this disease, if we use vaccine prepared from recently isolated, strongly hemolytic strains of the Bordet-Gengou bacillus, grown only on human blood and the like. We can not expect results from commercial pertussis vaccines.

LOUIS SAUER, M.D.

Evansville, Illinois.

### Training the Sense of Touch for the Passage of Urethral Instruments\*

THE passage of a urethral instrument whether catheter, sound or cystoscope, may be as dexterous—or as clumsy—as the casting of a trout fly. Practice makes perfect, but there is a preliminary exercise calculated to educate the fingers to overcome gently the resistance of the urethral muscles, as follows:

1.—Draw about 10 cc. of antiseptic solution into a small "asepto" syringe.

2.—With the patient lying on his back, grasp the corona of the penis between the ring and little fingers of the left hand; open the meatus by pressure with the thumb and index finger; apply the nozzle of the syringe and compress the bulb to inject the fluid into the anterior urethra.

3.—Withdraw the syringe, compressing the meatus laterally with index finger and thumb of left hand, so as to retain the fluid.

4.—Wait thirty seconds.

5.—Reopen the meatus and insert the syringe nozzle without spilling any fluid, then gently inject the air with which the syringe is now filled until the finger compressing the bulb recognizes that the anterior urethra is full. Because of leakage of air alongside the syringe, it may be necessary to charge the syringe several times with air during this and the succeeding maneuvers.

6.—The patient will instinctively have placed his hands under his head. Bid him place them on his chest and relax all his muscles, especially his feet. Then, with gentle intermittent pressure, try to force the antiseptic solution into the posterior urethra. If this fails,

\*Presented at the A.M.A. meeting in June, 1933.

bid the patient go through the motions of gently relaxing his bladder as if to urinate.

7.—When the muscle lets go, the release of pressure within the syringe permits the bulb to descend, thus injecting the fluid.

8.—The lesson is learned when the operator can count upon thus injecting the posterior urethra without exciting pain or hemorrhage, without spilling the fluid in the urethra and without injecting more than a minute bubble of air following the injected fluid.

EDWARD L. KEYES, M.D.

New York, N. Y.

### Viosterol in Acne Vulgaris\*

IN A GROUP of patients suffering from acne vulgaris, 90 percent were improved (by actual count of the pustules) from 70 to 80 percent, and the other 10 percent from 40 to 50 percent, within six weeks, by the administration of viosterol 250 D.

The dose, at the beginning, was 10 drops a day, gradually increased (within a week or two) to 20 drops a day and continued at that level.

ABRAHAM DOKTORSKY, B.S.  
S. S. PLATT, B.S.

Chicago, Ill.

### A Differential Urine Acidity Test

IF ONE is examining several specimens of urine, known to be acid by the litmus paper test, it is not always easy to determine the relative degrees of acidity of these different specimens without a chemical process. The various shades of red which blue litmus assumes when dipped in various acid urines may differ so slightly as to make it appear that all are of about the same degree of acidity.

Some years ago I devised a simple test for differential urine acidity and demonstrated it at a meeting of the Medical Round Table of Chicago, in October, 1930. Since that time the test has been in continuous use in my laboratory and turns out to be virtually indispensable. This has been abundantly proved a number of times, when the supply has given out, necessitating the temporary use of litmus paper, when the technical inferiority of the latter has become quite too evident.

The technic of the test has been described in an article published in *CLINICAL MEDICINE AND SURGERY* for November, 1931, pp. 805-8, but for convenience is here repeated:

Heat to boiling, in a perfectly clean container, 500 cc. of distilled water; add to it 500 milligrams of Rubin S. (Grübler); and after the red dye has well dissolved, add 25 cc. of decinormal sodium hydroxide solution; stir

and continue the boiling for a minute or two, until only a faint pink color remains; let it cool, pour into a bottle and close tightly with a clean, rubber stopper. I emphasize the need for a rubber stopper. The solution virtually cannot be preserved in a bottle closed with either a glass or a cork stopper without a good deal of unnecessary trouble, considering the ease with which rubber stoppers may be procured and used.

In case, however, the solution changes back to a bright red, procure the kind of a tin cup in which water may be safely boiled, pour the red solution into the cup, heat to boiling and, by means of a medicine dropper, add decinormal sodium hydroxide solution, drop by drop, slowly with stirring, until the red color gives way to the faint pink again.

I deem it of clinical importance to collect the urine in three separate portions during the 24 hours and to determine the relative acidity of each portion. (See *CLINICAL MEDICINE AND SURGERY*, Nov., 1931.) To do this, place 10 drops of each specimen on the vitrolite plate and add one drop of the Rubin S. solution to each one, dropping it in the center of the small pool formed by the urine. Then notice in which one the red color appears first, and how rapidly.

Up to this time (September, 1933), I have deferred endorsement of the test, so as to be sure there were no real objections to the use of it. I now have no criticisms to make and strongly advise its use by all such careful observers as are willing to heed the instructions about preservation of the faint pink color necessary for success in use.

CLIFFORD MITCHELL, M.D.

Chicago, Ill.

### Gonococcus and Actinomyces in the Female Genital Tract\*

INFECTION of the female pelvic organs by actinomyces is not so rare as is generally supposed.

The genus actinomyces is subdivided into three species (Bergey): (1) Animal parasites; (2) Plant parasites; (3) Saprophytes. Only a few pathogenic forms have been determined, but there are many non-pathogenic forms. *Nothing is known about their power to acquire virulence.*

Most forms of actinomyces lead a saprophytic existence on grains and grasses; hence soil and water may contain many, and in this way may gain access to the alimentary tract of animals. They are found more frequently in warm weather. Lower animals are susceptible to only a few forms found in human disease.

\*J.A.M.A., July 22, 1933.

\*Presented at the A. M. A. meeting in June, 1933.

Infection of the upper female genital tract (tubes and ovaries) by actinomyces is considered a serious surgical disease, and the infection generally thought to be of intestinal origin, often secondary to an infection of the intestines with actinomyces. In these cases infection via the vagina has been considered unlikely. The clinical course has been grave, operative mortality high and most of these cases have been studied post mortem.

From combined study, clinical, operative and post mortem, it has been noted that the invasion of the tissues by actinomyces is lawless. The organism will attack any structure in its path. The pelvic cellular tissue and parametrium are often involved.

Actinomyces undoubtedly do enter the genital tract via the vagina, but because of the great similarity of infection due to this organism and that by the *gonococcus*, it is probably often mistaken for the latter. Careful cultural and serologic work is necessary to establish the diagnosis, for the clinical pictures and bacteriologic spreads may be almost identical.

In a group of 100 cases of "clinical gonorrhea," the following incidence was noted: Actinomyces isolated by culture in 47 cases; organisms other than actinomyces isolated by culture in 53 cases; cases of pathogenic actinomyces which could not be proven gonorrhea by bacteriologic or serologic tests after provocative vaccine, 6 cases; actinomyces occurring in "mixed infection," with gonococcus, 19 cases; with staphylococcus and streptococcus, 42 cases.

Of these 47 cases, 6 were considered pathogenic and the infection was due primarily to actinomyces. Were any of these other cases (41) due to infection from the 6 pathogenic ones?

Because of this lack of knowledge and the fact that the actinomyces are resistant organisms, especially in the dry state, it is ad-

### DIFFERENTIAL DIAGNOSIS

|                                | <b>Gonococcus</b>   | <b>Actinomyces</b>  |
|--------------------------------|---|---|
| SOURCE OF INFECTION            | Usually sexual contact.   | Probably other sources. Possibly sexual contact.  |
| INCUBATION                     | Usually 10 to 14 days.  | ?   |
| CONSTITUTIONAL SYMPTOMS        | Usually mild.   | Usually mild, in vaginal cases.   |
| URETHRAL IRRITATION            | Usually present.  | Perhaps. -  |
| DISCHARGE                      | Usually profuse.  | Usually profuse.  |
| PUS IN URETHRA                 | Usual.  | Usual; discharge tenacious; necrosis beneath (in severe cases).   |
| SKENE'S GLANDS                 | Often involved.   | Often; resistant to cure.   |
| BARTHOLIN'S GLANDS AND DUCTS   | Often involved.   | Often; discharge tenacious; necrosis beneath.   |
| EROSION OF CERVIX              | Usual. Superficial in type involving periphery external os; pus wipes off easily. | Usual, but erosions "punctate" and in patches. Discharge creamy-white; membranous in type; necrosis underlying tissue (in severe cases).  |
| TUBES, OVARIES, PERITONEUM     | Extension via endometrium and tubes, producing perimetritis.                      | Extension by sloughing of cervix, involving pelvic cellular tissue and producing parametritis. (In this series no involvement noted above internal os proved due to actinomyces.) |
| SPREADS                        | Show typical gonococci.   | May show diplococci closely resembling gonococci.   |
| CULTURE                        | Show typical gonococci.   | Show typical actinomyces on special culture media.  |
| GONORRHEAL COMPLEMENT FIXATION | Positive  | Negative. (Only a small number of cases studied, however.)  |

vised that all acute pathogenic cases be carefully quarantined, and every precaution taken to prevent cross-infection.

EMILY DUNNING BARRINGER, M.D.  
New York City.

### Immunization Against Diphtheria With Toxoid\*

VARIOUS investigators have concluded that toxoid is superior to toxin-antitoxin for immunization against diphtheria. Toxoid eliminates sensitization to horse serum, fewer injections are needed, and its immunizing power is greater and more rapid. Approximately 2 cc. of toxoid is necessary to produce satisfactory immunity.

My associates and I were interested in determining what percentage of patients could be immunized with two doses of toxoid (each containing 1 cc.), and with a single injection of 1.5 cc. We reached the following conclusions:

1.—Nurses and hospital employees received 1 cc. doses of commercial toxoid, with seven

\*Am. J. Dis. Child., 44:1249, Dec., 1932.

days between injections. Immunity, measured by a negative Schick test, was present in from 80 to 87 percent after from fourteen to sixteen weeks.

2.—Immunity, measured by a negative Schick test, was acquired rapidly. One week after the second injection of toxoid, with an interval of one week between injections, from 34 to 43 percent of the subjects gave negative reactions; at two weeks, from 41 to 46 percent; at three weeks from 61 to 63 percent; at four weeks, from 71 to 73 percent, and at from fourteen to sixteen weeks, from 80 to 87 percent.

3.—A single injection of 1.5 cc. of commercial toxoid did not give sufficient immunity to warrant its continued use, in comparison with the immunity obtained by two injections of 1 cc. of toxoid, at an interval of one week.

4.—Data show that it is probable that a total dosage of at least 2 cc. of commercial toxoid is necessary for satisfactory immunization against diphtheria.

PAUL B. KREITZ, M.D.

Ann Arbor, Mich.

### Acetarsone in Trichomonas Vaginitis\*

VAGINITIS due to the trichomonas is highly resistant to treatment, but the application, by means of a special powder blower, of a dry powder, containing 12½ percent of acetarsone in equal parts of kaolin and sodium bicarbonate, has produced gratifying results.

The insufflations are repeated every second or third day, until 3 or 4 treatments have been given (one or two additional treatments may be required in obstinate cases). Douches are not permitted at any time. No local or systemic toxic effects have been observed.

GEORGE GELLHORN, M.D.

St. Louis, Mo.

### Bacteriophage in Streptococcic and Staphylococcic Meningitis

DR. JOHN A. KOLMER and Anna Rule have been experimenting with a streptococcus bacteriophage in streptococcic meningitis in rabbits, and report their results in *J. Lab. & Clin. Med.*, July, 1933.

They found that cisternal drainage, with intracarotid injection of the phage, resulted in the recovery of 30 to 40 percent of the infected animals, and suggest its use in the treatment of similar conditions in human beings.

\**J.A.M.A.*, June 3, 1933.

In *A. J. Dis. of Child.*, Oct., 1932, Dr. Robt. A. Schless, of Philadelphia, reports sterilization of the spinal fluid and recovery of a patient suffering from staphylococcal meningitis, after the intraspinal injection of staphylococcus bacteriophage.

### Diet in Heart Disease\*

DIET, while important, is only one factor in the treatment of heart disease.

Two main divisions may be made in considering diet in heart disease: heart failure with decompensation and the types of heart disease without decompensation. In the first type the diet depends largely upon the amount of fluid retained in the tissues and serous cavities. If there is marked edema in the dependent portions of the body and fluid in the abdominal and perhaps pleural cavities, the fluid intake should be restricted to between 800 and 1000 cc. a day, depending upon the degree of the edema and the response of the patient.

In cardiovascular-renal disease, the question of diet is not so important. A well balanced diet should be given, with the caloric requirement determined in each individual case. Overeating is detrimental, in that it increases the diaphragmatic pressure and thus embarrasses the heart. The protein requirements (50 to 70 grams a day for an adult) should be satisfied and salt, while not definitely restricted, should at least be used in moderation—4 or 5 grams a day.

Salt restriction depends upon the pathologic condition present, but in all cardiac cases it is best used sparingly.

ERNEST L. BOYLEN, M.D.

Portland, Ore.

### Neoarsphenamine in Tularemia†

FISHER states that three patients suffering from tularemia responded promptly and satisfactorily to three or four injections of neoarsphenamine. The initial dose employed was 0.45 Gm. The injection was repeated in from five to seven days, with a dosage of 0.6 Gm. The third dose was usually increased to 0.75 Gm. It has not been necessary to give more than five doses.

The primary lesion responded to treatment exactly in the same manner as the primary lesion of syphilis. The pain and swelling at the site of the primary lesion and of the accompanying member begin to disappear after the first injection. Tenderness is likely to persist for some time after healing has taken place. The improvement in the general con-

\**Northwest Med.*, Aug., 1932.

†*Indiana S.M.A.* 26:273, June 1, 1933.

dition of the patient, the increase of appetite and the decrease in temperature are just as satisfactory as the improvement in the primary lesion. Two of the patients experienced an improvement in their sense of wellbeing almost immediately after each treatment. The other patient, who had been confined to bed for several weeks, insisted on sitting up on the day the injection was given.

W. S. FISHER, M.D.

Columbus, Ind.

### Forceps and Pituitary Extract in Labor

IN the April, 1933, Seminar the discussions cause me some concern.

I have always opposed the use of forceps to hurry delivery. In over 2,100 confinements I have found it necessary to use them no more than half a dozen times. All mothers did well and all babies lived.

Although some physicians advocate the use of pituitrin in practically every labor, I have used it very few times, and then only when I was sure that no further progress would be made without it and that the pelvis was large enough to admit the passing of the head without injury to either child or mother.

I much prefer the use of thymo-pituitrin occasionally, to assist in dilatation when progress of the first stage is too protracted, and then only when I am sure of the ample size of the pelvic outlet.

I know from observation of women who have had either forceps or pituitrin or both used, that much mischief has been done. Some of the women will suffer the rest of their lives as the aftermath.

Instead of giving pituitrin I have other ways of stimulating and strengthening labor pains that I consider far safer. I give 1 grain quinine sulphate every hour for four or five doses and, when dilatation is perfect, I stretch the perineum.

E. J. HAY, M.D.

Rogers, N. M.

### The Fischer-Wasels Treatment of Cancer\*

BERNHARD FISCHER-WASELS, in 1929, suggested that carbon dioxide and oxygen inhalations, together with the production of an artificial acidosis, might help in the treatment of inoperable carcinomas. His theory was based on two ideas: first, that carcinoma patients have an alkalosis and that the alka-

losis favors the continued development of the disease; second, that increasing the oxygen supply to a carcinoma will decrease its activity of growth. It was suggested that treatment along these lines would not be effective alone, but that it should be combined with x-ray treatment, cod-liver oil, and ultraviolet irradiations. The x-rays were employed because of their known usefulness in treating carcinoma; the cod-liver oil and ultraviolet rays to "stimulate the reticuloendothelial system."

He recommended that the two gases should be given in a mixture containing 95 percent oxygen and 5 percent carbon dioxide, in periods up to two or three hours a day; also, that acid should be given to keep the urine constantly acid to a qualitative test. The dosage of x-rays was not indicated. Usual doses of cod-liver oil and ultraviolet rays were suggested.

We have treated five cases according to the suggestions of Fischer-Wasels. (Hydrochloric acid or ammonium chloride were given to keep the urine acid.) No benefit has been found beyond that offered by x-rays alone. Four of the patients have died; one is living and active, though not free of cancer. No support for the "alkalosis" theory of cancer has been found.

DRS. C. C. LUND & H. M. HOLTON.

Boston, Mass.

### Soy Bean Milk in Infant Feeding\*

THE mature soy bean is noted for its high protein content, for the presence of vitamins A and B and a small amount of D, and for complete absence of starch. The protein is adequate for complete maintenance and growth in animals, provided the proper salts are added to bring the salt balance to normal. The proteins, when fed at a high level of intake, are comparable to those of cows' milk. The bean contains vitamin A in amounts comparable to that of cows' milk, but is much richer in vitamin B. One ounce of soy bean milk powder has been shown to contain 28 Steenbock units of vitamin D. As compared with milk, soy bean powder is deficient chiefly in the carbohydrate and mineral balance.

In infant feeding we used a specially prepared soy bean flour, containing mammoth yellow soy bean powder, cotton seed oil, butter fat, cod-liver oil, malt syrup, lactose, calcium lactate and the so-called *Nemosalz* (glycerophosphates of iron and calcium, lactate of magnesium and the chlorides of sodium and potassium). This made a perfectly balanced food with a caloric value of 125 calories per ounce. This flour was used in the proportion

\**Am. J. Cancer*, 16:1489, Nov., 1932.

\**Am. J. Dis. Child.*, 44:1221, Dec., 1932.

of 35 grams to 8 ounces of boiled water, which gave the "milk" a grayish-white appearance and made it contain 3.6% protein, 3.07% fat and 7.3% carbohydrate.

The "milk" was used in feeding 50 infants over a period of one year. Some were fed on it exclusively and some were partially breast-fed (receiving an insufficient quantity from their mothers). All were given daily doses of cod-liver oil (4 cc.) and adequate amounts of orange juice. At the ages of 3 or 6 months, supplementary amounts of vegetables and cereals were added. The soy bean milk, with few exceptions, was well taken and well tolerated. The weekly gains, as with animals' milk, were variable, but a good average gain was maintained in a large proportion of cases. A certain group failed to show satisfactory gains. As there were no infections we considered these failures in the light of metabolic deficiencies.

DRS. F. R. RITTINGER AND L. H. DEMBO  
Cleveland, Ohio.

### Treatment of Peptic Ulcer with Gastric Mucin\*

THE basis of the treatment of peptic ulcer with purified mucin obtained from the hog stomach is the protective mechanism afforded by the mucin against the corrosive action of acid chyme; it protects the gastric and duodenal mucosa against chemical and mechanical irritation.

Experimentally, gastric mucin inhibits protein digestion *in vivo*, and the incidence of experimental ulcer formation in animals can be radically reduced by adequate doses of mucin.

Clinically, mucin treatment of peptic ulcer has been tried in the three associated Northwestern Medical School groups in Chicago; also by clinicians throughout the country. The particulars of the cases treated in Chicago are shown in the following table:

|   |     |
|---|-----|
| Total number of cases.....  | 288 |
| Intractable complicated cases not responding to previous therapy..... | 110 |
| Cases with acute massive hemorrhage..                                 | 21  |
| Cases having had gastro-duodenal surgery .....                        | 37  |
| Number of gastro-jejunal ulcers.....                                  | 3   |
| Failures .....  | 8   |
| Recurrences .....   | 3   |

Over 90 percent of 170 patients with intractable, complicated peptic ulcer were relieved of all subjective symptoms in approximately one week.

Mucin, tested and assayed, is at present available to all clinicians who agree to coop-

\**Ill. Med. J.*, Dec., 1932.

erate with the gastric mucin committee of the Northwestern University Medical School in reporting the type of case treated and the results obtained.

S. J. FOGELSON, M.D.

Chicago, Ill.

### Physiologic Birth Control\*

FOLLOWING up the work of Ogino and

Knaus, in regard to physiologic periods of sterility in women, we made a study of 87 normal couples, including 8 nationalities and covering 725 copulations. The findings tend to confirm the statement of Knaus, that, in women with a regular menstrual cycle of 26 to 30 days, conception possibilities are limited to the time from the ninth to the seventeenth days of the cycle, counting from the first day of each menstruation, coitus on the other 18 to 22 days of the cycle not being followed by impregnation.

Of the 725 cohabitations studied, not one which occurred outside the period of fertility just mentioned resulted in conception; all those occurring during the periods shortly before and after menstruation being sterile.

Sperm and egg cells, detached from their breeding places, live but a short time (sperm cells, 2 to 3 days; egg cells, 1 day).

Every normal, regularly - menstruating woman has a definite ovulation period, near the middle of the menstrual cycle, and therefore definite physiologic periods of fertility and sterility.

This being true, pregnancy may be brought about or avoided at will, by computing these periods of time and arranging coitus to correspond with them, as desired.

DRS. A. G. MILLER, C. H. SCHULTZ AND  
D. W. ANDERSON.

Hobart, Ind.

### Treatment of Vitiligo (Leukoderma)

VITILIGO or leukoderma is a harmless disease, but the white patches, if present on the hands and face, frequently cause a degree of disfigurement which calls for the attention of a physician.

Dr. Noxon Toomey, in his book, "The Treatment of Skin Diseases" (Lister Medical Press, St. Louis, 1930), recommends the application of ultraviolet rays from a water-cooled lamp under pressure, after protecting the normal skin with carefully applied adhesive plaster. A sharp, second-degree reaction, with slight vesiculation, should be produced. The resulting pigmentation will last for several months, and the treatment seems to have some curative effect.

\**Surg., Gyn. & Obst.*, June, 1933.

Dr. H. C. L. Lindsay, in *Archiv. Derm. & Syph.*, July, 1929, page 22, recommends intravenous injections of gold-sodium thio-sulphate, at weekly intervals, the first dose being 30 to 50 mgm. and subsequent ones 100 mgm. From 4 to 7 injections have cleared up the condition in several cases.

Dr. H. W. Francis, in *Nebr. St. M. J.*, Jan., 1931, p. 25, states that in several cases of leukoderma, including his own, he has always found complete achlorhydria; and the condition has been relieved by the regular use of 15 minims of dilute hydrochloric acid, taken in water after each meal. He warns that the acid must be *potent*, as he has found many specimens in drug stores which were not so.

### Non-Surgical Methods in the Treatment of Cosmetic Skin Disorders\*

**Y**OUNG keloids can be treated with x-rays or radium alone, while the old, firm keloids yield only to a combination of surgical and physical methods.

The tumors of the xanthoma group do not react to radiotherapy, and surgical excision is given preference. The same holds true for the treatment of lipoma, myoma, neuroma and fibroma.

As embryonic or rapidly-growing tissue is highly radio-sensitive, good results can be obtained only in tumors which are made up of such tissue, such as angiomas, while tumors consisting of fully developed blood vessels, like port wine marks, are extremely radio-resistant. Although still of the opinion that the use of radium should generally be reserved for the treatment of malignant tumors, the remarkable results obtained by radium in the treatment of widely-spread angiomas is one of the finest achievements in dermatologic practice.

The injection method of treatment, by the use of sclerosing solutions such as are employed in the treatment of varicose veins, is effective in properly selected cases. Lymph-angiomas and pigmented nevi are not amenable to x-rays nor radium.

The epilation of superfluous hair by x-rays is condemnable and should be replaced by electrolysis, because the amount of irradiation which is necessary to remove the hair permanently is beyond the safety line. For the treatment of hyperhidrosis, on the other hand, x-rays are the remedy of choice, but care should be taken to avoid excessive dryness of the hands.

While the common and plantar warts yield as a rule very well to x-ray irradiation, the juvenile wart reacts favorably to arsenic or

mercury, given by mouth or intramuscularly. The flat wart, seen in the bearded region, is best treated by fine desiccation. The senile keratoses should first be curetted, before x-rays or radium is applied.

In the treatment of "x-ray skin," a salt-free and vitamin A-rich diet seem to make the skin softer. The use of pancreatin, which has accomplished remarkable results in the treatment of scleroderma, might also be of value in the treatment of "x-ray skin."

The removal of focal infections has proved, in my hands, of great value in the treatment of pustular acne rosacea.

In the treatment of sycosis vulgaris, painting with brilliant green seems to be of great value in early cases of this disease. In cases where x-rays fail to cure, epilation with electrolysis, provided the area is not too large, has proved very successful.

Raynaud's disease reacts favorably to pancreatin by increasing the peripheral circulation, and sometimes to intravenous injections of sodium thiosulphate, if there is retention of heavy metals.

The treatment of lupus erythematosus with the different gold salts is a great step forward, in comparison with the older methods, which left considerable scarring of the face. The treatment of true tuberculosis of the skin with a salt-free and vitamin-rich diet marks one of the greatest achievements in dermatology within the past decade.

HERMAN FEIT, M.D.

New York City.

### Therapeutic Effect of Alcohol\*

**I**N THE past, alcohol has been a highly popular remedy in such conditions as pneumonia, tuberculosis and snake bites, and is so, to a less extent, even today.

We now know that, to the extent that this drug was administered as a stimulant, such therapy was and is erroneous, because it is always a depressant; but the fact that it depresses the higher centers first, thus benumbing or abolishing the civilized inhibitions and worries, makes it of value in conditions where the patient's fear of the outcome may be a powerful factor in determining a gloomy prognosis. It is in cases of this sort (pneumonia, tuberculosis, septicemia, etc.) that alcohol has had its greatest vogue.

This is also true of snake bites, for unless an adult man is bitten on a part of the body not covered with clothing, by an unusually large snake which has not emptied its poison sacs for more than twenty-four hours, such bites are, of themselves, rarely fatal, and persons who die in such circumstances generally die of *fright*, rather than poison. Whiskey

\*Author's abstract of a paper read before the Society of Plastic and Reconstructive Surgery, New York, Mar. 30, 1933.

\*Adapted from pp. 188-194, "Health Through Will Power": The Stratford Co., Boston, 1931.

will largely or wholly abolish the fear and give nature a chance to neutralize the poison without hindrance from the patient's destructive emotions.

JAMES J. WALSH, M.D.

New York City.

### Psychoanalysis or Common Sense?\*

**P**SYCHOANALYSIS is hardly more than applied common sense, associated with symbolic or figurative interpretation of symptoms. It does presume the prerequisite knowledge of human nature, emotions and fundamental physical signs and symptoms of the disagreeable emotional status.

If the patient does not know any formal psychoanalytic procedure is being attempted, results are usually more clean-cut and more easily obtained.

If prurientcy enters into the procedure, it is neither psychoanalysis nor is likely to be helpful; and it is by no means necessary to start with the presumption that all neuroses have a sexual origin.

Psychoanalysis is no more difficult than other medical procedures and may be likened to "mental surgery"; and, by the same token, a clumsy operator is capable of doing more harm than good; but every intelligent physician can and should practice this art, for the benefit of his patients and himself.

LEE D. CADY, M. D.

St. Louis, Mo.

### Deferred Operation in the Treatment of Periappendicular Abscess†

**W**E HAVE reviewed all the cases of acute appendicitis treated at the Cook County Hospital (Chicago) during the years 1930 and 1931. There were 173 patients who presented symptoms of acute appendicitis and in whom a mass was demonstrated. Some were immediately operated upon and in others operation was deferred.

In the deferred group, there were 84 cases, with 83 recoveries and one death. In 89 immediately operated upon there were 11 deaths (12.3 percent). The appendix was removed in 42 cases at the time the abscess was drained, with 3 deaths.

The present high mortality rate (about 15 percent) of acute appendicitis is due to fail-

ure to remove the appendix before it perforates. The mortality in the neglected cases, complicated by periappendicular abscess, can be reduced by deferring operation in those patients in whom the abscess can be determined to be resolving spontaneously and by draining only those abscesses that continue to spread under Ochsner management.

The treatment of the individual case, based upon the conditions found, will give better results and fewer deaths than the routine drainage of all cases of periappendicular abscesses.

KARL A. MEYER, M.D.

Chicago, Ill.

### Meatotomy\*

**T**HE normal urethra is a hose and requires a nozzle to direct its stream. The inflamed urethra is a drain and requires an opened orifice.

In order to treat anterior urethritis properly, the meatus should be cut to No. 30 F. size, unless it will normally take a No. 28 F. sound without bleeding.

Meatotomy is properly performed as follows:

1. Anesthetize the inferior commissure of the meatus by infiltration with local anesthetic from within outward, through the urethral mucosa.
2. The meatus is cut with scissors until a No. 30 F. sound will pass.
3. Open the incision by catching each side with an artery clamp, and draw these apart.
4. Staunch hemorrhage and, using a straight, atraumatic intestinal needle, plain catgut suture "O" size, catch the mucosa in the depth of the incision and the corresponding point of skin on one side, and suture.
5. Cut ends of suture 2 cm. long and still further open the wound by traction on the ends with an artery clamp.
6. Catch a similar suture in the depth of the wound on the opposite side, tying mucosa to skin.
7. These may suffice to control hemorrhage or it may be necessary to add one or two additional sutures on each side.
8. These sutures act as foreign bodies to prevent wound closure. No subsequent passage of sounds is required to keep the meatotomy wound open.

EDWARD L. KEYES, M.D.

New York, N. Y.

\*M. J. & Record, Jan. 18, 1933.

†Western J. Surg. Obst. & Gynec., March, 1933.

\*Presented at the A.M.A. meeting in June, 1933.

# THUMBNAIL THERAPEUTICS

## Nembutal Premedication

USE Nembutal, 3 grains (0.194 Gm.) by mouth, in addition to pantopon and scopolamine, for preoperative medication. The pantopon and scopolamine are given one hour before the operation, and Nembutal, 1½ grains, is given a quarter of an hour later and repeated quarter-hourly until the patient is asleep, the maximum dosage being 4½ grains.—Dr. F. P. DE CAUX, Anesthetist Woolwich War Memorial Hospital, London, in *Anesth. & Analg.*, Mar.-Apr., 1932.

## Steinach Therapy

FROM the endocrine point of view, the Steinach operation (vasotomy and ligation) could be called the opposite of castration. . . . It adds life to the years, not years to the life.—Dr. HARRY BENJAMIN, in *Am. Med.*, Dec., 1932.

## Liver in Anemia

A CASE of primary anemia, which failed to respond to both liver extract and ventriculin, responded satisfactorily to the juice of whole liver.—Drs. H. A. FREUND and A. E. PRICE, of Detroit, in *Ann. Intern. Med.*, May, 1932.

## Paroxysmal Tachycardia

IN 3 cases of paroxysmal tachycardia, a high-fat diet, supplemented with acids (and in one case with whiskey), maintained an acid urine and lessened the incidence of attacks of paroxysmal tachycardia.

The acid medication was either 5 grs. of acetylsalicylic acid 4 times a day, or 10 drops of dilute hydrochloric acid before meals, 3 times a day.—Dr. JAS. C. HEALY, in *New England J. Med.*, Nov. 19, 1931.

## Hammer Toe with Ankylosis

IN CASES of hammer toe with ankylosis it is desirable to lay the joint open and excise the ends of the bones at the joint—the base of the medial phalanx and the head of the proximal phalanx. No attention is paid to the

periosteum. A simple resection clear across the two bones is made, the cut ends are placed in apposition and allowed to grow together. This results in a stiff joint it is true, but the toe is straight and the fact that it is stiff causes no inconvenience whatever.—Dr. E. W. CORDINGLEY, of Clinton, Ind., in *Med. Herald*, May, 1932.

## Hemophilia Treated by Venesection

A CASE of long-standing hemophilia was relieved by bloodletting. Withdrawals of 500, 250 and 300 cc. of blood were made in hospital and, after discharge, of 500 to 600 cc. every five or six weeks. Headaches, vertigo, joint pains and subcutaneous hemorrhages ceased.—Dr. G. B. LAWSON and associates, of Roanoke, Va. in *J.A.M.A.*, Apr. 23, 1932.

In the same Journal and issue, Drs. A. G. Foord and B. R. Dysart, of Pasadena, Cal., report a case of clinical hemophilia, actively bleeding following tonsillectomy, treated by one injection of ovarian extract, with prompt arrest of the bleeding.

## Urinary Antiseptics

AMONG the older dyes advocated as urinary antiseptics are proflavine and acriflavine. In moderate doses these dyes do not appear to produce any toxic symptoms and that they do exert some definite action on the urine is indicated by the very evident color after ingestion by mouth. The clinical results obtained from their use, especially in cases which have not responded to other means of treatment, are satisfactory in a sufficiently high percent of cases to warrant their being considered as urinary antiseptics.—Dr. A. D. GRAY, in *J. Kansas M. S.*, Dec., 1931.

## Increasing Weight of Thin Patients by Insulin

FOUR thin patients gained weight rapidly following the administration of insulin. As a result of the treatment there was a great increase in the appetite.

The treatment is begun by administering 3 units of insulin subcutaneously every 3 hours. The patient should eat liberally ½ hour to ¾

of an hour after the injection to avoid insulin reaction. The dose of insulin is gradually increased until 10 units or more are injected every 3 hours. The insulin is discontinued when normal weight is reached.—DRS. L. H. NAHUM and H. E. HIMWICH, of New Haven, Conn., in *Am. J. Med. Sc.*, May, 1932.

### Metaphen in Gastric Ulcer

**N**O OTHER medicine should be used when giving Metaphen 1:500 by mouth in gastric ulcer and colitis, as it is incompatible with iodine and its salts, strong alkalies, acids and salts of all heavy metals.—C. M. TRIPPE, M.D., Asbury Park, N. J.

### The Prevention of Measles

**T**HERE seems to be a general agreement as to the value of adult human convalescent serum for the prevention of measles and some claim as high as 80 to 90 percent success. In using it, however, we must always remember that the resultant protection is only passive and will not last more than three weeks. This is the only measure of prevention of measles which has met with any degree of success. Editorial in *Internat. Med. Digest*, Nov., 1932.

### Insomnia in Nervous and Mental States

**N**ERVOUS insomnia is not just sleeplessness, but sleeplessness on which fear and apprehension have been engrafted. Analysis of the cause of the psychoneurosis, with reeducation of the patient mentally and physically, is the only legitimate and satisfactory method of cure.—DR. H. D. EATON, of Los Angeles, in *Calif. & West. Med.*, Mar., 1932.

### Whooping Cough Treated with Gold Tribromide

**I**N 45 cases of whooping cough, treated with gold tribromide, the results were most gratifying. As a general rule, 1/20 to 1/10 grain (3 to 6 mgm.) was given, in solution in water with a little glycerin added, three times a day and once at midnight.—DR. J. EPSTEIN, of New York, in *M. J. & Record*, Aug. 3, 1932.

I have been a subscriber to "C. M. & S." for 37 years—almost since its birth. I could not do without it. It has been my constant friend and counselor. As long as I practice medicine it shall come to my desk. The material in any one issue is always worth more to me than \$3.00.—M. L. W., M.D., Texas.

### Posture of the Cardiopath During Pregnancy and Labor

**D**URING labor, the cardiopathic patient should be kept in a sitting posture. The delivery should be accomplished in the same posture, and prophylactic forceps done in the second stage of labor in all cardiopaths.

Immediately after the delivery of the child, sandbags should be applied to the abdomen, to prevent splanchnic engorgement. Pituitrin is given as necessary, as well as ergot. The patient should be kept in a sitting posture for at least three days, and gradually brought back to a recumbent position while noting the effect on the cardiorespiratory system.

Vital capacity should be ascertained as a routine in the prenatal examination, as an early gauge of myocardial insufficiency.—DR. LOUIS RUDOLPH, Chicago, in *A. J. Obst. & Gyn.*, Apr., 1932.

### Barbiturates

**A**S a preanesthetic, the proper amount of derivatives of barbituric acid, given in small doses by mouth or intravenously, beginning 12 to 14 hours before the maximum effect is desired, will probably give more satisfaction than any other drug except opium that has been used for years. To relieve a nervous, high strung, sensitive patient of a sleepless night, with only partial remembrance of the trip to the operating room and of the first day after operating, is to lift from him a terrific nervous strain which, probably, few of us understand.

The barbiturates now claiming so much attention are the most dependable agents we have.—DR. J. T. MASON, in *Surg. Gynec. & Obstet.*, Apr., 1932.

### Impetigo

**A**CCORDING to Dr. J. G. Tomkinson, in *Practitioner*, Lond., Mar. 1932, impetigo contagiosa is a streptococcal infection. Most cases yield readily to treatment. For removal of the scabs, the boric acid-starch poultice is one of the best methods. An ointment, the base of which may be zinc oxide ointment, vaseline or equal parts of it and lanoline, to 1 ounce of which ammoniated mercury, gr. V, is added, should be applied on lint to the surface beneath the scabs. In intractable cases the author has found an aqueous lotion of ichthyol, usually 10 percent, applied on lint, of great value. It should be dabbed on to the parts, the soaked lint applied and changed night and morning, with a midday moistening.

In bullous cases, the lesions should be punctured with a sterile needle and a dressing of boric acid ointment applied.

## NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., is accompanied by a check for the published price of the book.

*Blessed art, that makes books and thus joins me to a stranger  
by this perfect railroad.*—EMERSON.

### Bastedo: Pharmacology and Therapeutics

**M**ATERIA MEDICA, PHARMACOLOGY, THERAPEUTICS AND PRESCRIPTION WRITING. For Students and Practitioners. By Walter A. Bastedo, Ph.G., M.D., Sc.D. (Hon. Columbia), F.A.C.P., Assistant Clinical Professor of Medicine, Columbia University; Consulting Physician, St. Luke's Hospital, New York, St. Vincent's Hospital, Staten Island, and the Staten Island Hospital; President, United States Pharmacopoeial Convention, 1930-1940; Member Revision Committee U.S. Pharmacopoeia; etc. Third Edition Revised. Philadelphia and London: W. B. Saunders Company, 1933. Price \$6.50.

This book is an adaptation, for the most part, of lectures delivered at Columbia University. In its preparation the author has kept in mind that the physician's reason for the study of remedies is the treatment of the sick, and has laid most stress upon those things that bear on practice, even to the exclusion of some matters of great interest in pharmacology.

Extensive recent research in physics, chemistry, physiology, pharmacology, bacteriology, experimental therapeutics and clinical medicine and surgery have made necessary an almost complete rewriting. New articles have been added on suprarenal cortex, ephedrine, quinidine, plasmochin, yatren, ethylene, the barbiturates, pre-anesthetic narcotics, carbon dioxide, carbon tetrachloride, and the anti-septic dyes, mercurochrome, metaphen, the mercury diuretics, phenylhydrazine, insulin, ovarian preparations, colloidal lead in cancer and a number of other remedies that have attained therapeutic interest. Special articles have been introduced on alkalies in stomach treatment, alkali substitutes in stomach treatment and the effect of atropine on the stomach. The endocrine drugs have not been considered as a class, but have been introduced where they seem to belong, pharmacologically or therapeutically.

The style is exceptionally concise and clear, combined with good organization, and the typography is excellent. These qualities enable study to be rapidly and easily accomplished by the practicing physician or student who is in search of essential information.

The task of bringing the work to date concerning the use of new products, and in the knowledge of drugs already established, has been well done, except that an increase of the space devoted to vitamins might be of value.

Every physician's library should contain at least one good, up-to-date book on materia medica and therapeutics. This will do nicely.  
H. C. S.

### Rose: Dietetics

**A** LABORATORY HANDBOOK FOR DIETETICS. By Mary Swartz Rose, Ph.D., Professor of Nutrition, Teachers College, Columbia University. Third Edition. New York: The Macmillan Company, 1932. Price \$3.00.

A most useful book, chiefly consisting of tables evaluating the articles of food included in the diet, the average requirements of the essential nutritional factors, menus, marketing lists and other dietary sheets, as well as conversion tables for weights and measures and suggested equipment for a dietetic laboratory.

This book should be in the hands of everyone engaged in the study and practice of dietetics. Since proper nutrition is becoming more and more appreciated by the physician and dentist, it will be of inestimable value to both as a dependable reference manual.

C. N.

### Flagg: Art of Anesthesia

**T**HE ART OF ANAESTHESIA. By Paluel J. Flagg, M.D., Visiting Anaesthetist to Manhattan Eye and Ear Hospital, Nursery and Child's Hospital, and St. Vincent's Hospital, New York, N. Y.; Consulting Anaesthetist to the Woman's Hospital, Sea View Hospital, Jamaica Hospital, St. Mary's Hospital, Far Rockaway, N. Y.; Formerly Lecturer to Rockefeller Institute War Demonstration Hospital and to the College of Physicians and Surgeons, New York, N. Y. Fifth edition, revised. 149 illustrations. Philadelphia and London: J. B. Lippincott Company, 1932. Price \$5.00.

The first edition of this treatise on the art of anesthesia appeared in 1916. The author's conception was that the proper administration of anesthetics was an art, based not only on an intimate knowledge of the agents used and of their effects but on experience in their application. This art implies acquaintance with general medicine, pathology, surgery, therapeutics, psychology and special branches of medical practice. The author deprecates the administration of anesthetics by lay persons not possessing the required knowledge and experience. The book is,

therefore, a groundwork upon which the student, intern and general practitioner may acquire a comprehensive knowledge of the art of anesthesia. General, local and mixed anesthesia are dealt with and the various methods of inducing these are described.

This is the fifth edition of the work. Since the last edition was issued (1928), considerable experience has accumulated in the field of intratracheal anesthesia, in resuscitation of the asphyxiated and in the development and use of new basal anesthetics. All these matters are covered in the present edition, together with what progress experience has found to be good in the use and application of older anesthetic methods.

The keynote of the author's treatment is that drugs that destroy consciousness, muscle tone and reflexes are dangerous drugs; that the anesthetist should always respect them as such and should never allow their administration to deteriorate to a mere routine.

The book is clearly printed and, even if the author's handling of the subject may be deemed dogmatic, those for whom it is intended will find it full of valuable information acquired from experience and study.

### Cantarow: Calcium Metabolism and Calcium Therapy

**CALCIUM METABOLISM AND CALCIUM THERAPY.** By Abraham Cantarow, M.D. Instructor in Medicine, Jefferson Medical College; in charge of Laboratory of Biochemistry, Jefferson Hospital; Assistant Physician, Philadelphia General Hospital. With a Foreword by Hobart Amory Hare, B.Sc., M.D., LL.D. Late Professor of Therapeutics, *Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia.* Second Edition, Thoroughly Revised. Philadelphia: Lea & Febiger. 1933. Price \$2.50.

This second edition (the first edition was in 1931) covers the ever-increasing field of calcium therapy, with many of the subjects cleared up which were controversial in the first edition.

The arrangement is in three parts: Part I, Normal Calcium Metabolism; part II, Abnormal Calcium Metabolism; and part III, Calcium Therapy. The subject matter is covered from a clinical standpoint and the dangers which may result from a faulty or imperfect calcium metabolism and their correction by calcium medication are well presented. The bibliography, which was increased from 16 to 20 pages, over the previous edition, shows the extreme interest taken in calcium therapy within the past few years.

C. F. L.

### Hertzler: Local Anesthesia

**THE TECHNIC OF LOCAL ANESTHESIA.** By Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S., Professor of Surgery in the University of Kansas; Surgeon to the Halstead Hospital, Halstead, Kansas; etc. Fifth Edition. With 148 illustrations. St. Louis: The C. V. Mosby Company. 1933. Price, \$5.00.

The use of local anesthesia alone, or better in conjunction with one of the newer hypnotics, offers the physician who does not have readily available the complicated apparatus associated with general anesthesia a simple and convenient method of meeting his anes-

thetic requirements; and even in those centers where such things are available, the surgeon is turning more and more to the use, in suitable cases, of local anesthetics through spinal anesthesia and nerve blocking.

The volume under discussion presents first, in brief form (16 pages), an outline of the use of procaine, as well as a description of some of the more recently proposed local anesthetics, Diothane, Quinine, Nupercaine, Tutocaine, etc. It is to be regretted that no mention is made of Butyn or Pantocaine.

The second chapter deals with the equipment necessary for routine work, the preparation of solutions, premedication of the patient, and the technic for endermic infiltration and nerve blocking.

Subsequent portions discuss specific types of operations, for example: operations on the scalp, the cranium and its contents; operations on the tonsils, adenoids, trachea and thyroid glands; abdominal operations, etc. The fifteen-page chapter on spinal anesthesia has been written by Dr. A. E. Spelman and a brief one on intravenous barbiturate anesthesia by Dr. R. F. Gard. There are 184 well selected illustrations.

That the present volume is the fifth edition, speaks well for the quality of its presentation of a subject well deserving of intensive study by the practitioner.

D. L. T.

### Eggleston: Prescription Writing

**ESSENTIALS OF PRESCRIPTION WRITING.** By Cary Eggleston, M.D. Assistant Professor of Clinical Medicine, Cornell University Medical College, New York City. Fifth Edition, Revised. Philadelphia and London: W. B. Saunders Company. 1933. Price: \$1.50.

Every physician should know how to write a prescription accurately and readily, but many of them do not. Here is a pocket-size handbook that will help to that end.

For those who desire to write their prescriptions in Latin, there is a chapter on Latin grammar. Weights and measures, vehicles, doses, incompatibilities, modes of administration and practical prescription writing are considered.

A handy little volume for the student or practitioner who wants to know about this important matter.

### Jackson: Sex Determination

**THE TRANSMISSION OF SEX.** And its Pathological Significance. By R. Clay Jackson, editorially assisted by Raymond L. Schultz, M.D., San Diego, Calif.: Arts and Crafts Press, 826 Third Avenue. 1933. Price, \$2.00.

The thesis of this author is that fathers transmit maleness and mothers femaleness, and that this power is increased in either parent by sheltering him or her from sunlight. Thus, if a son is desired, the father should work at some indoor (sheltered) occupation and the mother expose herself as much as possible to the sun's rays for several months before conception, and vice versa for a daughter.

He has a further theory that if the complexion, weight and light exposure of the two parents are approximately equal, the children are liable to be "congenital defectives," be-

cause of lack of complete dominance of one sex factor over the other.

This contribution to the conflicting literature of sex determination (a paper-bound brochure of 62 pages) contains a considerable array of statistics and sufficient details to enable anyone who thinks it is worth while to test it.

### Hoskins: The Endocrines

**THE TIDES OF LIFE. The Endocrine Glands in Bodily Adjustment.** By R. G. Hoskins, Ph.D., M.D. Director of Research, Memorial Foundation for Neuro-Endocrine Research, Research Associate in Physiology, Harvard Medical School. New York: W. W. Norton & Company, Inc., Publishers. 1933. Price: \$3.50.

The remarkable developments in endocrinology during the past few years, and the dramatic effects of glandular excesses and deficiencies on the personalities of the sufferers, have aroused so much general interest that a number of popular books on the subject (most of them half-baked or deliberately "jazzed up" to catch the layman's attention) have had large sales.

Here is a semi-popular book dealing with these vital matters, written by a man who knows his subject and the English language, and who seems to have been more concerned with giving a reliable account, in a pleasing form, of what is now known about the ductless glands, than he is about the number of copies that will be sold.

The various endocrine organs are here discussed with sufficient simplicity to be readily understood by the average practitioner, or even an intelligent layman, and with enough detail to make the work really useful to physicians, to whom it can be cordially recommended, to give them a sound background for more technical studies of a subject with which all of them should be familiar.

The book is well made and printed and adequately illustrated and indexed. It will make a valuable addition to any physician's library and good reading in the meantime.

### Robinson: Abortion

**THE LAW AGAINST ABORTION. Its Perniciousness Demonstrated and Its Repeal Demanded.** By William J. Robinson, M.D. Editor of the Critic and Guide, Consultant to the Bronx Hospital, Fellow of the American Medical Association and of the New York Academy of Medicine, Member of the New York State and New York County Medical Society; etc. New York: The Eugenics Publishing Company, Inc. 1933. Price: \$2.00.

The author of this volume was one of the earliest American proponents of contraception and now takes an equally vigorous stand for the repeal or extensive modification of our laws relating to abortion, his position being that these laws are innately pernicious and the direct cause of hundreds of thousands of unnecessary deaths and many cases of chronic invalidism every year, and that they are wholly unworkable (like the eighteenth amendment) and do not result in stopping abortions (about 2,000,000 are performed in the United States each year), but merely in throwing them into the hands of unscrupulous and incompetent physicians or ignorant midwives.

While Dr. Robinson feels that abortion is always an evil, he is equally sure that it is,

not infrequently, the lesser of two or more evils, and that, in such cases, the man who performs it is a better man and citizen than the one who refuses to do so.

The Doctor's style is always terse, picturesque, forcible and convincing. He states his reasons without equivocation and backs up his position with illustrative instances.

However violently one may disagree with this author, physicians who are wise will listen to what he has to say before judging; and many will find the book one which is well worthy of a place in their libraries.

### Surgical Clinics of North America

**THE SURGICAL CLINICS OF NORTH AMERICA.** Mayo Clinic Number. Volume 13, Number 4, August, 1933. Philadelphia and London: W. B. Saunders Company. Issued serially, one number every month. Per clinic year, May, 1933 to April, 1934: Paper; \$12; cloth, \$16 net.

The August, 1933, number of the Surgical Clinics of North America contains 24 contributions from members of the Mayo Clinic. The majority are case reports of unusual conditions, but several of the papers will be found to be of great interest to the general surgeon. Dr. E. Starr Judd contributes, with different colleagues, to the four opening papers on abdominal surgery, those on hypertrophic stenosis of the pylorus in adults (20 cases) and on chronic duodenal obstruction being the most interesting. Dr. A. W. Adson writes a good paper on "Neuro-surgical Treatment of Muscular Spasms and Spastic Painful and Trophic Lesions of the Extremities"; and surgeons will also find worthwhile Dr. Jas. R. Learmonth's paper on "The Principle of Decompression in the Treatment of Certain Diseases of Peripheral Nerves."

Dr. John S. Lundy writes briefly on the "Use of Ephedrine in Spinal Anesthesia" and with Dr. Cecil E. Newell contributes an excellent clinical paper on "Spinal Anesthesia with 10-percent Procaine Solution (100 Cases)."

Two other papers which will be read with interest are that by Dr. C. W. Mayo and John R. Phillips on "Acute Intussusception in Children," and that by Dr. E. H. Droege Mueller on "Renal Tuberculosis—A Detailed Study Made Early in the Disease."

### International Clinics

**INTERNATIONAL CLINICS.** A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest. By Leading Members of the Medical Profession Throughout the World. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. Volume 3. Forty-third series, 1933. Philadelphia and London: J. B. Lippincott Company.

Volume III, Forty-third Series, 1933, of International Clinics opens with four papers devoted to diseases of the parathyroid gland; Dr. Russell M. Wilder leads with a paper on the "Diagnosis of Parathyroid Overfunction."

In the medical section, Dr. Lewellys F. Barker opens with a contribution on "Adult

Myxoedema in Association with Hypophyseal Neoplasm." There is another paper on the thyroid, "Thyrotoxicosis Masked by Normal or Subnormal Basal Metabolic Rate," by Dr. Roger S. Morris. A very interestingly written and illuminative account of "The Mental Aspect in the Etiology and Treatment of Pulmonary Tuberculosis" comes from the pen of Dr. Lawrason Brown, of Saranac Lake Sanitarium. Dr. L. H. Sigler throws some new light on the "Clinical Manifestations of Rheumatic Fever." Dr. Solomon Strouse gives a good practical account of "The Treatment of Diabetes Mellitus" and Dr. Wm. Dock contributes a paper on "Digitalis Administration," in which he sums up the present aspects of the use of this valuable drug.

The rest of the volume is made up of a few papers on surgical subjects and a "Clinical Pathological Conference," together with reviews on the recent literature in ophthalmology and otolaryngology.

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### Morse: Medical Secretary

**THE MEDICAL SECRETARY.** By Minnie Genevieve Morse, Member Board of Registration, Association of Record Librarians of North America; Author of "Case Records in Small Hospitals." New York: The Macmillan Company. 1933. Price \$1.50.

The author of this briefly and clearly written handbook speaks with the authority of a number of years' experience as a secretary and case record librarian. She gives advice and instruction on every phase of the medical secretary's duties, beginning with a discussion of the qualifications and personality required; following with chapters on: Office and Patient; Medical Correspondence, Bills, and Reports; Medical Indexing and Filing; Medical Research; Preparation of Medical Manuscripts; and Medical Terminology; and concluding with a bibliography of valuable reference books and a comprehensive index of the present volume.

Any secretary to a physician, especially the beginner without medical training, will find this little book decidedly helpful. The physician himself would benefit by a perusal of its pages, particularly those covering record keeping and the preparation of manuscripts.  
M. L. C.

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### Brugsch: General Medicine

**ERGEBNISSE DER GESAMTEN MEDIZIN:** Unter Mitwirkung Hervorragender Fachgelehrter. Herausgegeben Von Prof. Dr. Th. Brugsch, o.ö. Professor und Direktor der Medizinischen Klinik der Universität Halle a.d.S. XVIII. Band—Jahrgang 1933—Heft 1, 2 und 3. Berlin & Wien: Urban & Schwarzenberg. 1933. Price RM 27.—geh. RM 30.—geb.

This serially published encyclopedia of medical practice still goes on, and these three sections of the 18th volume contain, among others, elaborate articles on uremia, Grenz-ray therapy, pyelography, allergic skin diseases, the modern management of diabetes, electrocardiography, etc.

The physician who reads German readily should find this series of treatises decidedly valuable.

### Quigley: Vitamins and Diets

**NOTES ON VITAMINS AND DIETS.** By Daniel Thomas Quigley, M.D., F.A.C.S., Instructor in Surgery in the University of Nebraska College of Medicine; Fellow of the American Medical Association; Member of the American Association for the Advancement of Science, etc. Illustrated. Chicago: Consolidated Book Publishers, Inc. 1933. Price \$1.00.

A popularly-priced publication for the laity—a handbook on the vitamins in general and their relation to health and disease. It reviews the vitamins and many severe diseases which may or may not be caused by the lack of them. The author goes so far as to classify the population according to the percentage of vitamins furnished in the diet and to mention the diseases common to each group, including cancer, high blood pressure, heart diseases, rheumatism, mental diseases, etc.

The book contains some truths and much speculation. Authentic information is very desirable, but we question the advisability of conveying too much speculation to the laity, for it will open no end of possibilities for misunderstanding and misinterpretation, both of which must be avoided if the world is to benefit from the newer knowledge of nutrition.

C. N.

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### Harington: The Thyroid Gland

**THE THYROID GLAND.** Its Chemistry and Physiology. By Charles Robert Harington, M.A., Ph.D., F.R.S. Professor of Pathological Chemistry in the University of London. London and New York: Humphrey Milford, Oxford University Press. 1933. Price \$4.50.

This monograph is written by a chemist, its general aim being to describe in detail the chemistry of the thyroid gland itself, and to give full consideration to those chemical factors which determine the relations of the gland to the rest of the organism and through it to the general environment. The physiology and pathology of the thyroid are referred to only so far as they are necessary to the discussion of the main thesis.

Of the eight chapters making up the volume, those on the chemistry of thyroxine and the chemical constitution of thyroxine in relation to its physiologic activity are the most important. There are chapters on goiter and cretinism and on the biochemical aspects of Graves' disease; the doubtful direct association of the latter with thyroid incapacity or dysfunction is admitted.

Although the main matters dealt with are of more particular interest to laboratory technicians and physiologists than to clinicians, yet the practice of medicine at the present day makes it necessary that clinicians should have a clear knowledge of those underlying chemical processes of the body, the disturbances of which are associated with disease entities. The connection of metabolic functions with the thyroid is generally admitted, and a book like this will not be out of place on the practitioner's bookshelf.

There is an excellent bibliography of the literature dealing with the subject at the end of the book, and the typography is satisfactory.

# MEDICAL NEWS



(c) Keystone View Co.

## Red Cross Air Ambulance

THE British Red Cross is now organizing and training an air ambulance detachment, every member of which will be fully instructed in first-aid work and in the loading of litter cases into a plane.

The picture shows a squad loading a litter patient into a Red Cross plane at the Croydon air-drome, during a training demonstration.

## Heart Enlarges Its Scope

TWENTY-FOUR years ago, the British journal, *Heart*, made its first appearance, to publish original studies of the physiology and pathology of the circulatory system, which were then many and important.

The volume of strictly cardiac research work has now diminished to the point where it seems best to include reports of other clinical studies, so the journal becomes *Clinical Science*—a very high-class, scholarly publication, issued irregularly, four numbers a year, and of special interest to research workers and libraries.

## Civil Service Examination

The United States Civil Service Commission announces the following-named open competitive examination:

### *Junior Medical Officer (Interne)*

Applications for the position of junior medical officer (interne) must be on file with the

U. S. Civil Service Commission at Washington, D. C., not later than November 15, 1933.

### *Junior Graduate Nurse*

Applications for the position of junior graduate nurse must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than November 10, 1933.

Full information may be obtained from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city, or from the United States Civil Service Commission, Washington, D. C.



(c) Underwood & Underwood

## A Medicine Man of Iraq

IN OUR rural districts we used to see peripatetic "medicine shows" from time to time, at which panaceas were dispensed to all and sundry—for a consideration.

Here is the less feverish Oriental version of the same thing, as practiced in Iraq. The calm and smiling Semitic medicine vender is here shown as he squatted in the market place of Mosul, weighing out some remedy for his customer.

## Southern Medical Association

THE annual meeting of the Southern Medical Association will be held at Richmond, Va., Nov. 14 to 17, inclusive, 1933.

This is one of the most important meetings of the year, and all physicians who can plan to do so should attend.

Complete information may be had from Mr. C. P. Loran, Empire Bldg., Birmingham, Ala.

# SEND FOR THIS LITERATURE

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Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment, or medicinal supplies. *Make use of this department.*

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| O-504 | Bedtime Nourishment. Mellin's Food Co.  | O-720 | National Hay Fever Antigens. The National Drug Company.   |
| O-571 | Detoxification in the Treatment of Intestinal Infections. The Wm. S. Merrell Company.   | O-725 | <i>The Hormone</i> —October, 1933. The Harrower Laboratory, Inc.  |
| O-596 | The Pneumonic Lung. Its Physical Signs and Pathology. The Denver Chemical Mfg. Co.  | O-737 | Descriptive Booklet. Od Peacock Sultan Co.  |
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- O-785 Endo Liver Extract in the Treatment of Pernicious Anemia. Endo Products, Inc.
- O-786 The Safe Treatment of Hemorrhoids. Schering & Glatz, Inc.
- O-787 Gastric Mucin (Stearns) treatment of Peptic Ulcer literature containing tasty recipes sent to physicians. Frederick Stearns & Co.
- O-788 The Public Health Value of Contraceptives by Jacob J. Blair. Holland Rantos Company, Inc.
- O-789 Creofos. Creosote with Hypophosphites Delson. The Delson Chemical Co., Inc.
- O-790 Technic of Intramuscular Injection. Loeser Laboratory.
- O-791 Stimulating the Colon. William R. Warner & Company, Inc.

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